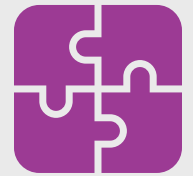




2022 Sustainability Report



Environmental










Social



Governance

Contents

	CEO Message 2				
	A Letter from Leadership 3				
	About Renesas 4				
	About Renesas 5				
	Renesas At-A-Glance 6				
	Worldwide Locations 7				
	Renesas Culture 8				
	Sustainability Approach 9				
	Our Sustainability Approach 10				
	Materiality Assessment & Results 11				
	Our Ongoing Commitment 12				
	ESG Targets: Overview 13				
	2021–2022 ESG Highlights 14				
	Timeline of Recent ESG Developments 15				
	Innovation for a Sustainable Future 16				
	Sustainability Promotion Structure 17				
	ESG Ratings & Scores 18				
	Index Inclusion & Participating Initiatives 19				
	Awards & Recognitions 20				
	Environmental 21				
	Q&A with Eizaburo Shono 22				
	Environmental Initiatives 23				
	Our Response to the TCFD Proposal 24				
	Our Commitment to Carbon Neutrality 25				
	Conserving Water 28				
	Chemical Substance Use Management 31				
	Waste Management 33				
	Eco-Product Initiatives 35				
	Renesas Green Devices 39				
	Biodiversity Conservation Activities 46				
	Social 52				
	Q&A with Julie Pope 53				
	Q&A with Shuhei Shinkai 54				
	Diversity, Equity and Inclusion 55				
	Investment In Human Capital 60				
	Commitment to Protecting Human Rights 61				
	Employee Health & Safety 65				
	Social Contributions Through Community Involvement 68				
	Engagement with Our Supply Chain and Partners 71				
	Governance 73				
	Q&A with Noboru Yamamoto 74				
	Our Governance Structure 75				
	Board Skills & Diversity 77				
	Compliance & Business Ethics 78				
	Risk Management 80				
	Information Security Policy 82				
	Tax Policy 83				
	Appendix 85				
	Task Force on Climate-Related Financial Disclosures (TCFD) Content Index 86				
	Sustainability Accounting Standards Board (SASB) Index 88				
	Global Reporting Initiative (GRI) Index 90				
	Environmental Data 97				
	Independent Verification Report 104				
	About This Report 105				
	Forward-Looking Statements 106				

A Letter from Leadership

It is my great pleasure to share Renesas' first sustainability report, which demonstrates our commitment to realizing a sustainable society and our progress toward this goal.

With over 21,000 employees around the world, we are united under one mission—to build a safer, greener, and smarter world where technology helps make our lives easier. My core belief is that semiconductor products and solutions Renesas develops directly contribute to achieving a sustainable future. Our advanced technologies in smart factories and homes, connected cars, and EVs are great examples. We strive to enhance our quality of life, while reducing greenhouse gas emissions and preserving natural resources.

We have actively implemented various programs to reduce carbon footprint at our manufacturing sites, increase our water recycling rates, and build a resilient supply chain with our suppliers globally.

“My core belief is that semiconductor products and solutions Renesas develops directly contribute to achieving a sustainable future.”

We invest in our people who are critical to our growth and achieve our sustainability goals. As a global company, we celebrate and promote Diversity, Equity and Inclusion and provide a rewarding and value-based workplace and career opportunities.

Since founding the Sustainability Promotion Office in 2020, we have made significant progress by working together with our internal and external stakeholders including the Board of Directors.

For the first time in 2022, we were included in three ESG-related Financial Times Stock Exchange (FTSE) indices and received an “AA” rating from Morgan Stanley Capital International (MSCI). We are proud of these recognitions and invite you to learn more about our efforts and accomplishments in this report.

We look forward to continuing our sustainability journey and sharing the positive impact of our offerings and capabilities each year.

Sincerely,

Hidetoshi Shibata
President and CEO



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



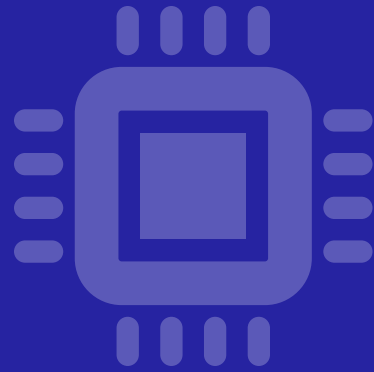
Social



Governance



Appendix



About Renesas

About Renesas	5
Renesas At-A-Glance.....	6
Worldwide Locations	7
Renesas Culture	8



About Renesas

Renesas Electronics Corporation (TSE: 6723) empowers a safer, smarter and more sustainable future where technology helps make our lives easier. The leading global provider of microcontrollers, Renesas combines our expertise in embedded processing, analog, power and connectivity to deliver complete semiconductor solutions. These Winning Combinations accelerate time to market for automotive, industrial, infrastructure and IoT (Internet of Things) applications, enabling billions of connected, intelligent devices that enhance the way people work and live.

Automotive



Highly reliable vehicle control, safe and secure autonomous driving, eco-friendly electric vehicles

Industrial



Lean, flexible and smart industry

Infrastructure



Robust infrastructure, enabling safety and efficiency

IoT



Comfortable, safe and healthy lifestyles through IoT



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Renesas At-A-Glance



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance

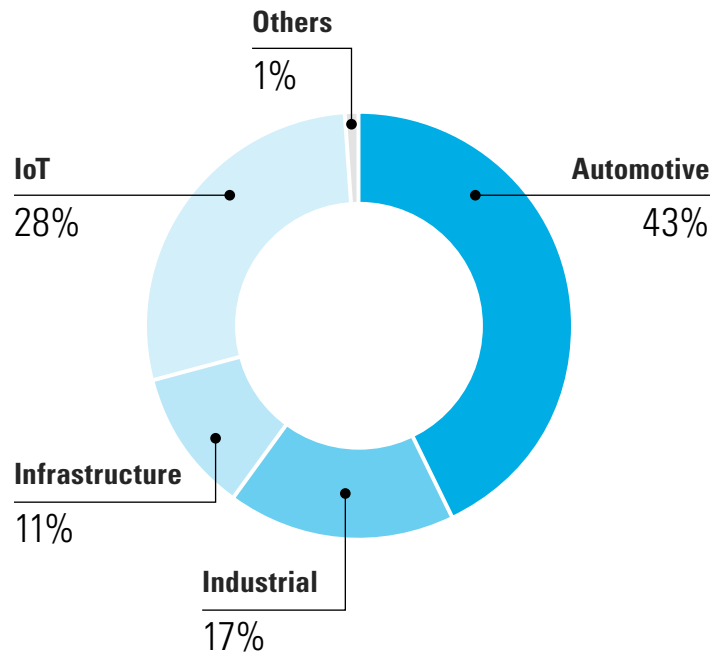


Appendix

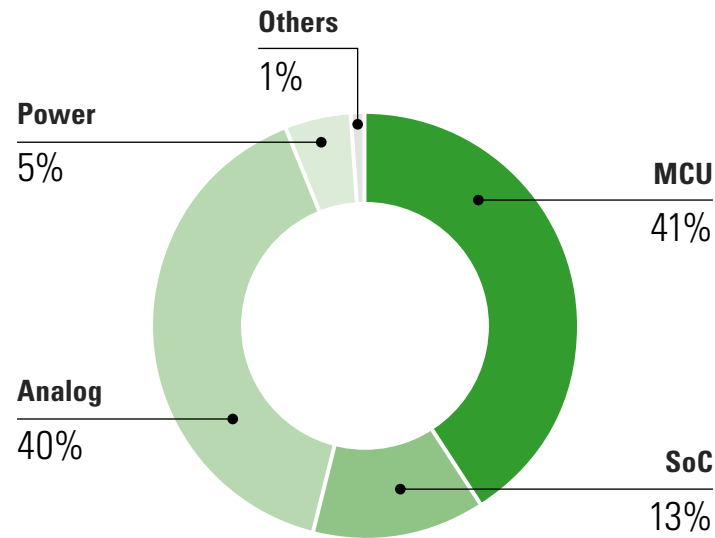
Revenue

1,502.7B Yen

BY SEGMENT



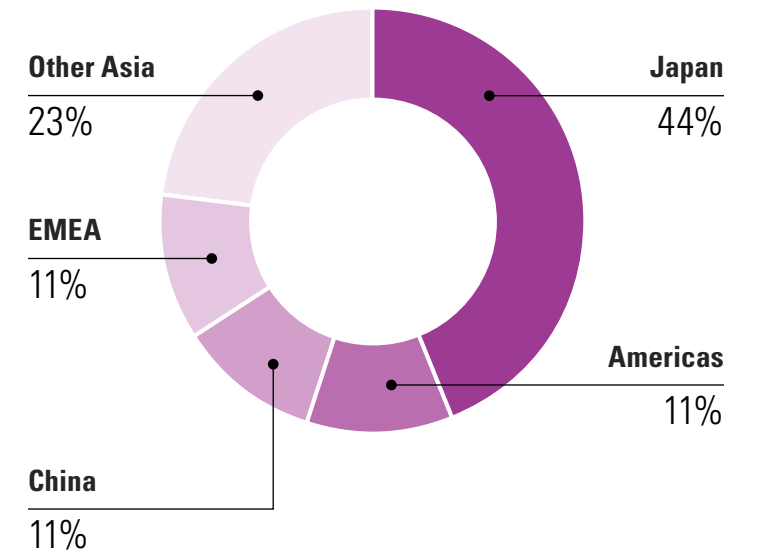
BY PRODUCT



Employees

21,000 Total

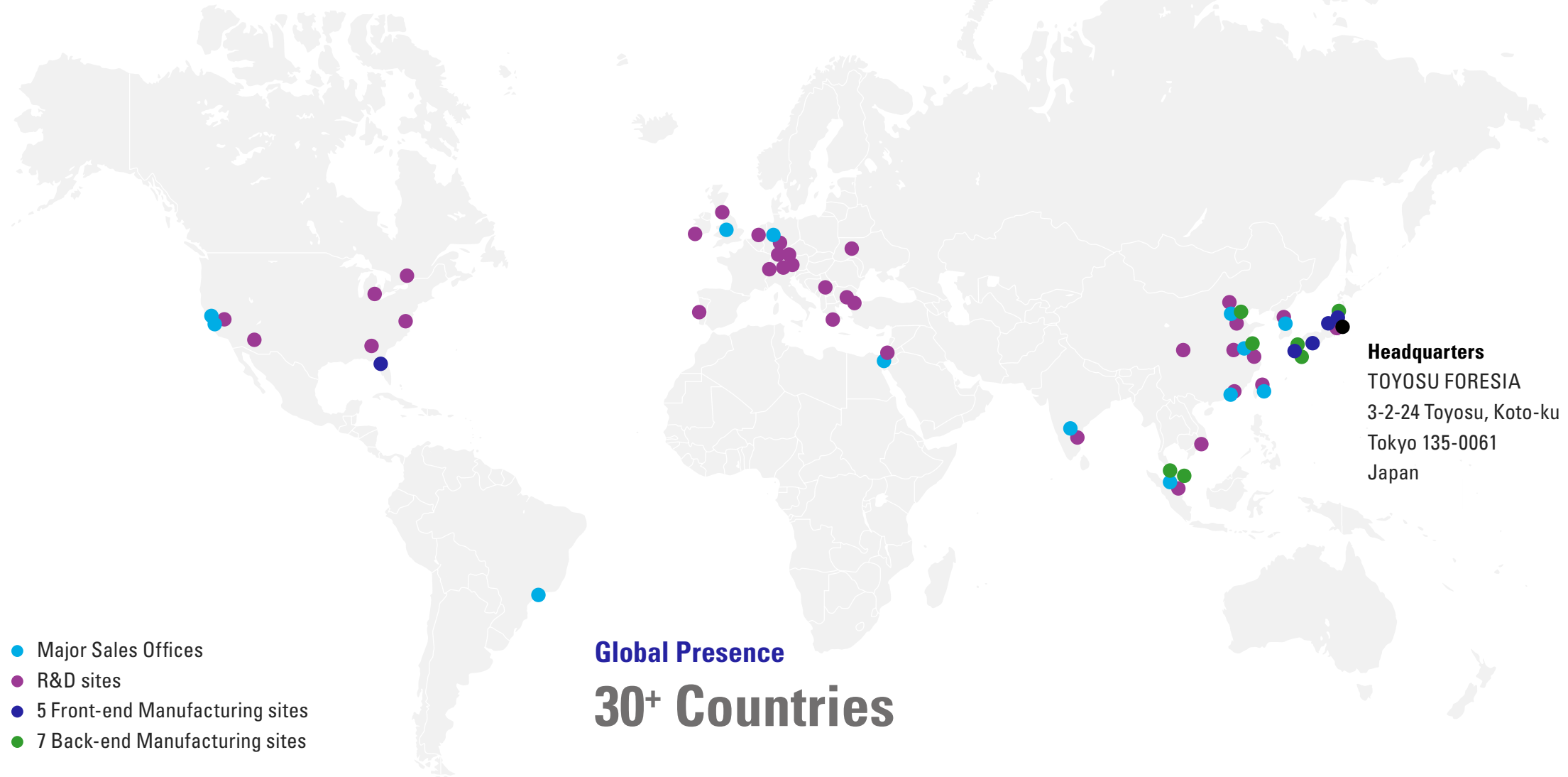
BY GEOGRAPHY



As of December 31, 2022

Worldwide Locations

Renesas currently operates from headquarters located in Toyosu, Tokyo in Japan as well as through sales offices and manufacturing, design and development sites located around the world in Asia, Europe and the Americas. Each office is organized and operated in accordance with the laws and regulations of the respective countries.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



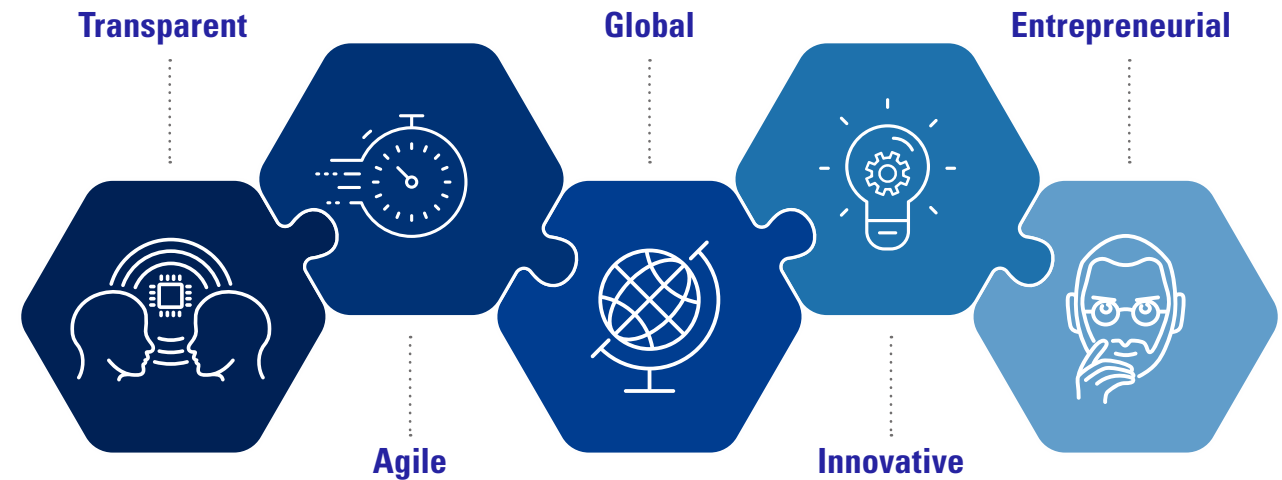
Appendix

Renesas Culture

“Renesas Culture” was developed in 2020 to foster teamwork and shared success across the organization. The five pillars of Renesas Culture, “Transparent, Agile, Global, Innovative, and Entrepreneurial” define core values as a company and empower employees in all our activities, behavior and decision-making.

These elements will allow us to respond flexibly to changes and solve issues, and continue to make a positive impact on our company and society. We encourage each Renesas Group employee to embody this Culture by incorporating the values into their decision-making processes and operations.

Based on our Renesas Culture guidelines, we will continue to improve how we listen to the voices of our diverse stakeholders, earn their trust and meet their expectations. By doing so, we believe we can make a contribution to our society and fulfill our duties as a responsible global company.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Sustainability Approach

Our Sustainability Approach.....	10
Materiality Assessment & Results.....	11
Our Ongoing Commitment.....	12
ESG Targets: Overview.....	13
2021–2022 ESG Highlights.....	14
Timeline of Recent ESG Developments.....	15
Innovation for a Sustainable Future.....	16
Sustainability Promotion Structure.....	17
ESG Ratings & Scores.....	18
Index Inclusion & Participating Initiatives.....	19
Awards & Recognitions.....	20



Our Sustainability Approach



At Renesas, sustainability is at the heart of what we do. Our products and solutions reflect our long-term commitment to building a sustainable future where technology helps make our lives easier.

We are committed to:

- Developing products and solutions that contribute to building a sustainable society
- Achieving the industry’s highest standards in each of the environmental, social and governance (ESG) areas
- Supporting the UN Sustainable Development Goals (SDGs)



Our Purpose

To Make Our Lives Easier
by complementing human capabilities

- Contents
- CEO Message
- About Renesas
- Sustainability Approach**
- Environmental
- Social
- Governance
- Appendix

Materiality Assessment & Results

We conducted our comprehensive materiality assessment in 2022 to identify and prioritize the issues that matter most to our business and stakeholders. This assessment provides a basis for managing current ESG opportunities, risks and impacts, and identifies emerging issues. The assessment deemed the following issues as material for Renesas as of 2022.



People

- Health, safety and well-being
- Talent attraction, engagement and retention
- Diversity, equity and inclusion



Environment

- Climate change, energy and emissions
- Water management
- Waste, chemicals and product lifecycle management



Society

- Value creation and distribution
- Strategic sourcing



Business Sustainability

- Innovation management
- Value chain resilience
- Customer engagement and quality standards
- Financial resilience

- Contents
- CEO Message
- About Renesas
- Sustainability Approach**
- Environmental
- Social
- Governance
- Appendix

Our Ongoing Commitment

To ensure that we are aligned with the ever-changing priorities of our stakeholders, Renesas is committed to conducting the materiality assessment with internal stakeholders every year and external stakeholder interviews every other year going forward. To help us identify and prioritize ESG issues of mutual importance, we have engaged an extensive range of internal and external stakeholders in this process, including CEO and senior executives, managers, and ESG discipline experts (HR, Environment, Heads of Business Units, Risk, Procurement, etc.). The Sustainability Promotion Office collaborates with key departments to achieve KPIs they establish each year, reports progress to the management, and shares externally.

1: Baseline Analysis

The following items are reviewed:

- Internal documentation
- Media coverage
- Relevant standards and frameworks
- Assessments of ESG investors and rating agencies
- Materiality assessment reports of peer companies
- Country risk data presented by third party

Identify relevant ESG topics

2: Initial Scoring

- Develop a dashboard showing relevant issues
- Perform a quantitative evaluation of the results
- Perform analysis and mapping applying a set of criteria that consider:
 - the magnitude of the issue's impact on Renesas
 - its importance to stakeholders
- Allocate scores to relevant issues

3: Internal Input

- Present the results and their analyses to the company executives and experts in various departments, including Environment, Risk Management, Procurement, HR, Legal, Technology and Finance
- Incorporate their feedback into the scoring

Analyze and prioritize topics through stakeholder engagement

4: External Input & Final Review

- Present the results and their analyses to key external stakeholders, including shareholders, lenders and customers
- Incorporate their feedback into the scoring and then finalize the materiality matrix

Results are used in planning:

- Sustainability strategy
- Future ESG reporting focus areas

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

ESG Targets: Overview



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Environmental

GHG EMISSIONS

- Reduce by 38% by 2030
- Achieve carbon neutral status by 2050

WATER CONSERVATION

- Reduce water intensity by 33% by 2030
- Realize 35% water being recycled by 2030

WASTE MANAGEMENT

- Achieve 90% or more of waste recycling



Social

SUPPLIER RISK EVALUATION

- Ensure all key suppliers obtain an RBA SAQ score of “medium” or below

ON-SITE SUPPLIER AUDIT

- Audit all key suppliers within three years

CONFLICT MINERALS

- Achieve 100% conflict-free 3TGs (Tungsten, Tantalum, Tin and Gold)

OCCUPATIONAL HEALTH & SAFETY

- Achieve ISO 45001 for all major manufacturing sites



Governance

BOARD GENDER DIVERSITY

- Advance gender equality with women holding at least 20% of the board seats

INDEPENDENT DIRECTORS

- Aim for over 50% independent directors

2021–2022 ESG Highlights



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social




Governance



Appendix

Environmental

Committed to carbon neutrality by 2050	Reduced GHG emission by 6.8%*
Renesas Green Devices accounted for 93% of new product development	Obtained SBTi validation on GHG emission reduction target 
Improved water intensity by 38%	Achieved 32% water recycling rate
Maintained 92% waste recycling rate	Reduced energy consumption by 1.2%

Social

Expanded Women in Technology Employee Resource Group across the company	Implemented the first human rights due diligence 
Achieved 97% employee participation in human rights e-learning course	Received 90%+ supplier response to the Self-Assessment Questionnaire
Obtained ISO 45001 certification for our main production bases in Japan	Included in CDP 2022 Supplier Engagement Leaderboard

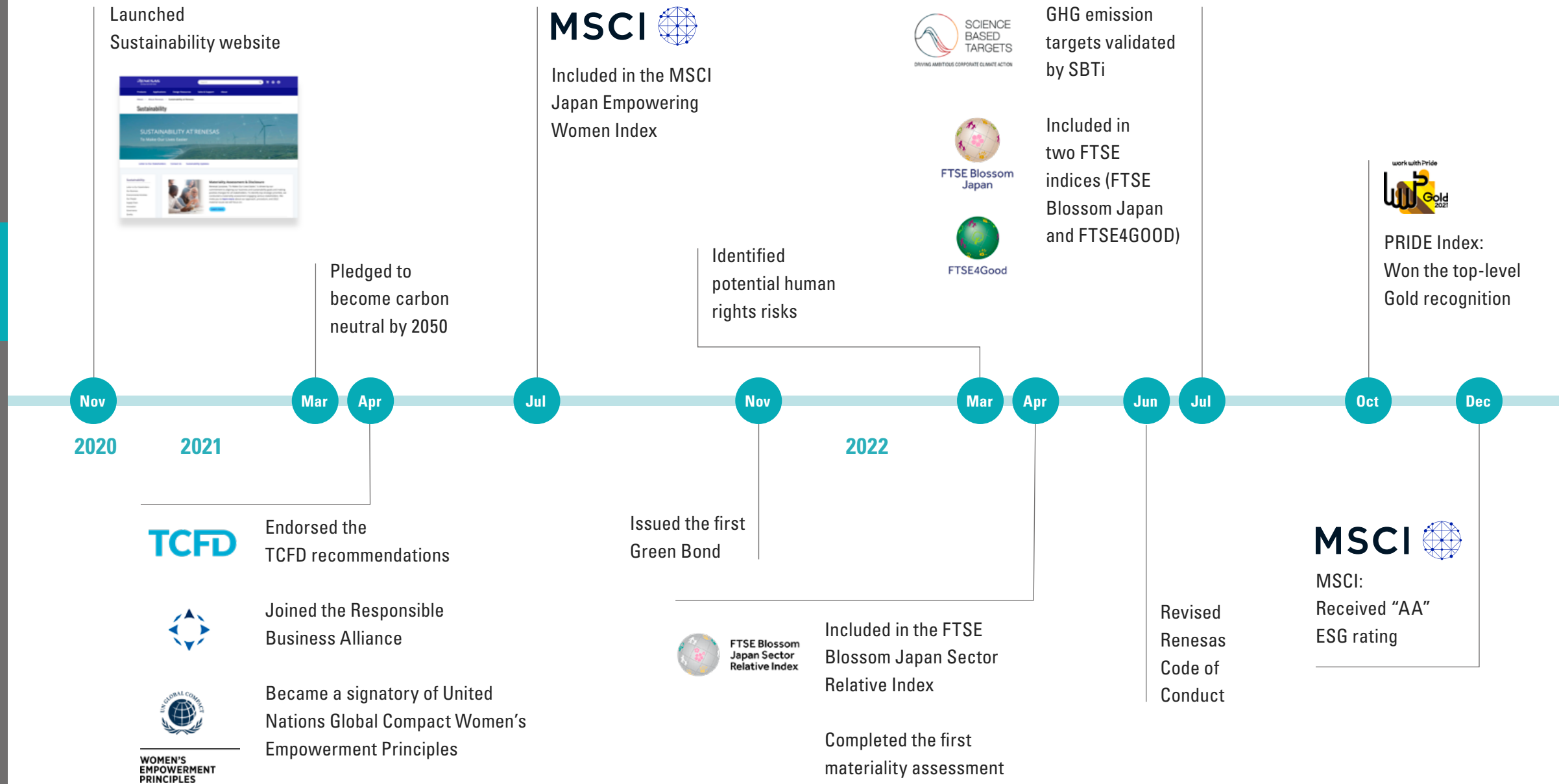
Governance

Received "AA" ESG rating MSCI 	Completed the first materiality assessment 
Established a Security Council consisting of the CEO, CFO, General Counsel and the heads of IT and HR 	Achieved Board gender diversity target of 20% in March 2022
Enhanced cybersecurity 	Revised Renesas Global Code of Conduct 

* Figures were revised on July 1, 2023. Please refer to the [Editing Policies](#) for details.

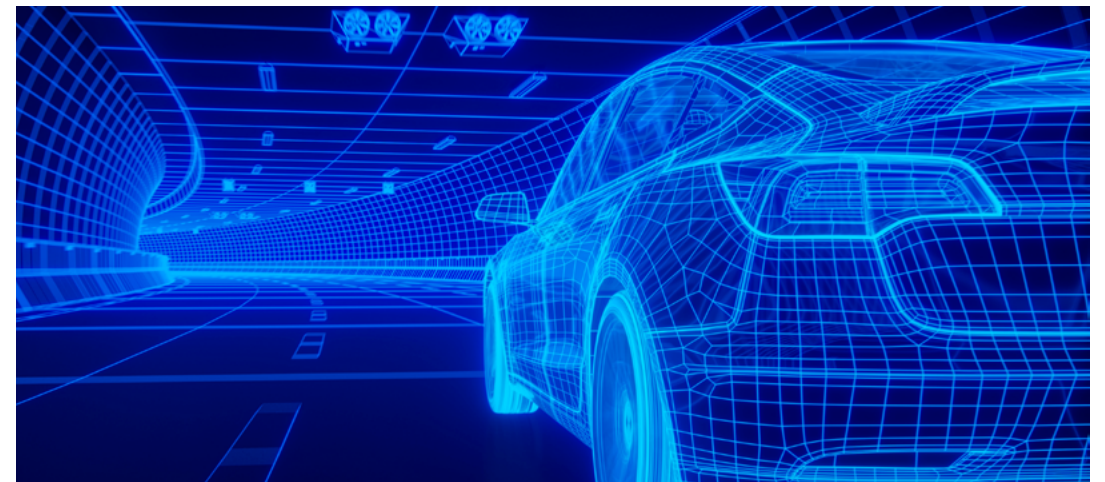
Timeline of Recent ESG Developments

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix



Innovation for a Sustainable Future

Renesas believes that we can contribute to a sustainable society by accelerating innovation in meaningful and productive ways. While we continue to pursue our four core technology areas (Artificial Intelligence, Safety & Security, Digital & Analog & Power Solution, and Cloud Native), our strategic focus on sustainability is centered around developing energy-efficient solutions and technologies that make people’s lives safe and secure.



A Sustainable Focus on:

Products and Solutions that Contribute to Energy Efficiency

- RH850 automotive microcontrollers
- High-quality memory interface ICs and timing devices used in data centers
- Millimeter-wave beamforming ICs for 5G systems
- IGBTs and photocouplers for renewable energy solutions
- RZ microprocessors with a built-in high-precision AI accelerator for factory automation
- Green and Super Green Devices

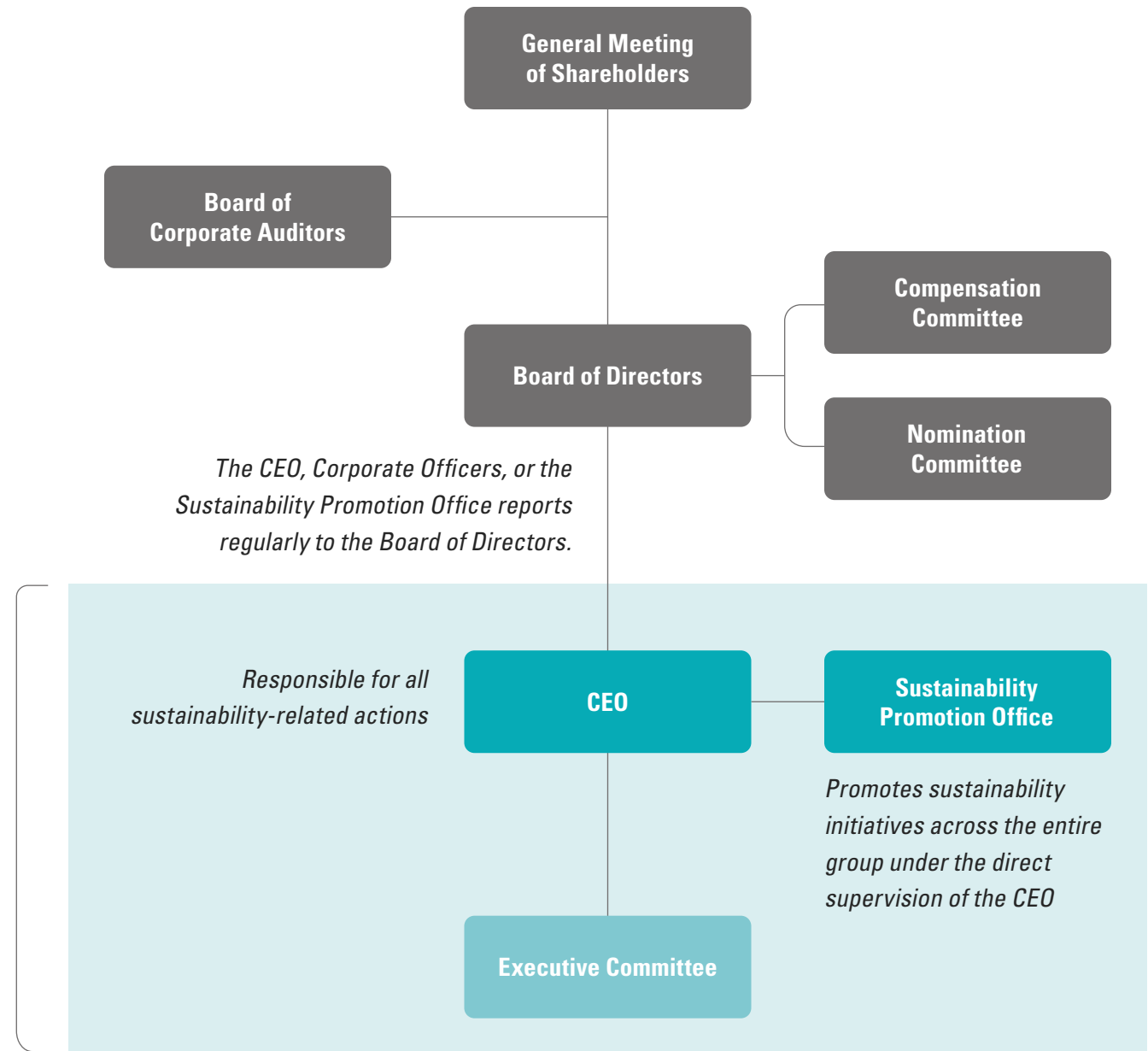
Products and Solutions that Contribute to Safety & Security

- Touchless solutions and ultra-low-power ozone-sensing firmware
- Autonomous driving and advanced driver assistance system solutions for functional safety standards
- Automotive microcontrollers and SoCs (System on Chip) that comply with ISO/SAE21434
- Microprocessors and transceivers that support security features of IoT devices and AI processing

- Contents
- CEO Message
- About Renesas
- Sustainability Approach**
- Environmental
- Social
- Governance
- Appendix

Sustainability Promotion Structure

To promote group-wide sustainability initiatives, we have established the Sustainability Promotion Office (SPO) in 2020 under the direct supervision of the CEO, who assumes responsibility for all initiatives related to sustainability at Renesas. SPO is an integral part of our strategic planning, increasing transparency and accountability, and fostering diversity and collaboration across the Renesas Group.



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

ESG Ratings & Scores

We have made consistent progress over the past two years, as evidenced by our efforts surrounding improved data disclosure as well as the demonstrated effectiveness of our ESG policies and practices.

		2022	2021
	FTSE Russell	3.9	3.0
	Sustainalytics	24.4 (Medium)	29.8
	MSCI	AA	BBB
	CDP (Climate)	B	B-
	CDP (Water)	B	B
	CDP (Supply Chain)	A	A-
	Pride Index	Gold	Silver



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance









Appendix

Index Inclusion & Participating Initiatives

To fulfill our responsibility as an industry leader, we have continued to expand our strategic partnerships and commitments to sustainability and diversity initiatives.

Index Inclusion

 MSCI Japan Empowering Women Index (WIN)	MSCI Japan Empowering Women Index
	FTSE Blossom Japan Sector Relative Index
	FTSE Blossom Japan Index
	FTSE4Good Index Series
	S&P/JPX Carbon Efficient Index
	Sompo Asset Management's SNAM Sustainability Index

Participating Initiatives



United Nations Global Compact



Task Force on Climate-related Financial Disclosures (TCFD) Japan Consortium



Responsible Minerals Initiative of the Responsible Business Alliance



Global Semiconductor Alliance's Women's Leadership Initiative (WLI)



Water Project by the Ministry of Environment in Japan



Japan Electronics and Information Technology Industries Association's Semiconductor Environmental Strategy Committee and Responsible Mineral Procurement Study Group



Japan Climate Initiative



Business for Marriage Equality



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Awards & Recognitions

Renesas is honored to have received the following awards in 2021 and 2022:



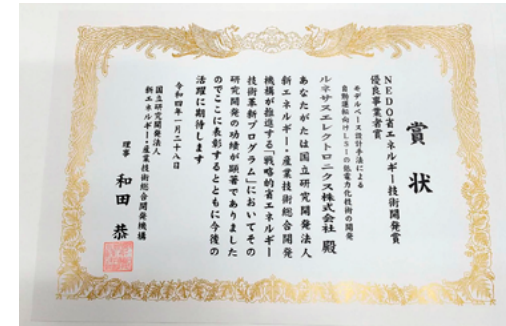
RENESAS WON 2022 “OUTSTANDING ASIA-PACIFIC SEMICONDUCTOR COMPANY AWARD” BY GSA

Renesas received the 2022 “Outstanding Asia-Pacific Semiconductor Company Award” by the Global Semiconductor Alliance (GSA) (announced on December 12, 2022). GSA represents the semiconductor industry across the globe, with over 300 corporate members worldwide. Annual awards are given to members that have demonstrated excellence through their success, vision, strategy, and future opportunities in the industry. The award is presented to an APAC-headquartered semiconductor company, chosen by industry peers on GSA’s APAC Leadership Council.



“TOP 100 INCLUSIVE COMPANY RANKING” BY FORBES JAPAN

Due to high employee engagement such as global diversity and inclusion and employee stock options, Renesas was ranked in the top 100 of the “2022 Inclusive Company Ranking” by Forbes JAPAN, the Japanese edition of Forbes. Out of all 1,839 companies listed in the Prime Market of Tokyo Stock Exchange, Renesas ranked 8th in the “Stakeholder Capitalism” segment.



2021 NEDO CONSERVATION TECHNOLOGY DEVELOPMENT AWARD

Renesas was awarded the 2021 NEDO Conservation Technology Development Award by the New Energy and Industrial Technology Development Organization (NEDO) in Japan. The award recognizes Renesas’ contributions for developing energy efficient low-power automotive LSI technology using model-based design techniques. The award is given to companies that have developed groundbreaking R&D technology for clean energy adoption and energy conservation between 2021 and 2022.



OVERDRIVE AWARD BY GENERAL MOTORS

Renesas was recognized as an Overdrive Award recipient at GM’s 30th Annual Supplier of the Year Awards. The Overdrive Award is presented to suppliers that showcased outstanding achievements in sustainable automotive supply chain management, innovation, building supplier-customer relationships, total enterprise cost, product excellence and safety. The winners of the 2021 Supplier of the Year Award and Overdrive Award were selected based on performance criteria in product purchasing, global purchasing, manufacturing services, customer care, after-sales and logistics.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Environmental

Q&A with Eizaburo Shono	22
Environmental Initiatives	23
Our Response to the TCFD Proposal	24
Our Commitment to Carbon Neutrality	25
Conserving Water	28
Chemical Substance Use Management	31
Waste Management	33
Eco-Product Initiatives	35
Renesas Green Devices	39
Biodiversity Conservation Activities	46



Q&A with Eizaburo Shono



Eizaburo Shono

Senior Vice President and General Manager, Production and Technology Unit

Q: Why are environmental initiatives important for Renesas and how do they contribute to a sustainable society?

A: To contribute to building a sustainable society, we must achieve business operations that are sustainable over the long term. This requires formulating appropriate responses to changes in the business environment. Over the past few years, risks and opportunities related to environmental changes, such as climate change, have increased globally. The semiconductor industry requires very large amounts of energy and water resources for manufacturing and generates a lot of chemicals and waste. For Renesas, there is also the potential risk that environmental changes could significantly affect its business operations. At the same time, demand in the semiconductor market is growing for applications that improve energy efficiency and transition away from fossil fuels, and these present significant growth opportunities for the low-power solutions in which Renesas excels. We believe that properly addressing the risks and

opportunities associated with these environmental changes will help Renesas achieve sustainable business operations.

Q: What is your policy regarding environmental initiatives?

A: The Renesas Group is committed to reducing its environmental impact and preventing pollution by complying with environmental laws and regulations and continuously improving our global environmental management system in all of our corporate activities. In addition, our policy is to provide environment-friendly semiconductor products and solutions throughout their entire life cycle, from R&D, design, procurement, production, sales, distribution, use, and disposal. Our goal is to support a sustainable society as well as foster corporate activities that enable both environmental conservation and healthy lifestyles for people.

Q: Tell us about Renesas' environmental initiatives in the last fiscal year.

A: Last fiscal year, we focused on the following priority measures: energy conservation (primarily the purchase of green electricity at our manufacturing sites), the introduction of solar purchase power agreements (PPA), and the improve intensity of energy consumption. Specifically, we began implementing measures such as the purchase of green electricity at our manufacturing

sites in Japan and the introduction of solar PPA at our manufacturing sites in China and Malaysia. We are also working to communicate our environmental targets and implementation measures throughout the company, particularly among front-line employees, through e-learning and other forms of environmental education.

Q: Please tell us about your priorities for this fiscal year.

A: This fiscal year, we are implementing three environmental initiatives. The first is to achieve zero violations of environmental laws and regulations and zero environmental accidents, as we did in the previous fiscal year. To achieve this, we will continue to utilize our environmental management system. Second, we will continue to implement measures in areas including energy conservation, water conservation, and waste reduction and reuse promotion to achieve our environmental preservation goals. And finally, we will ensure transparency to our stakeholders. Last year, we obtained third-party verification of our environmental data to improve the reliability of our environmental data, and actively participated in external initiatives. As a result, we were included in the FTSE ESG Index. We will continue to communicate with our stakeholders on the progress of our environmental initiatives in a timely manner through this Sustainability Report, our website, and our responses to global ESG evaluation organizations.

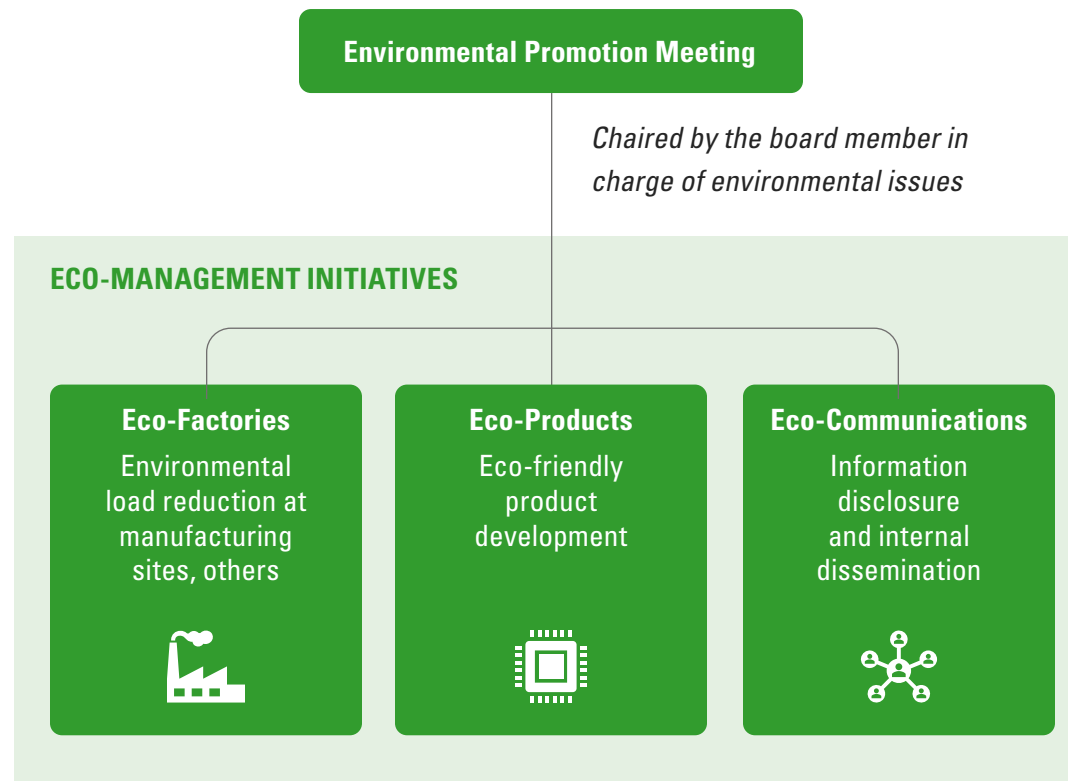
- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

Environmental Initiatives

Renesas is committed to reducing the environmental impact of its production activities and developing eco-friendly products that help improve the environmental performance of its customers, in accordance with our Environmental Policy and Action Guidelines established with the approval of the CEO.

Three Focus Areas

We promote global environmental management based on the “Eco-Management Initiative” system to address important issues including (1) Legal and regulatory compliance, (2) Reduction of environmental impact, (3) Eco-friendly product development, and (4) Stakeholder relationship management.



Environmental Management System

Renesas’ Environmental Policy and the Basic Rules of Environmental Management are defined in our Basic Management Rules.



All of our domestic and overseas manufacturing sites have ISO14001 certification, an international standard for environmental management systems









In particular, with regard to greenhouse gas reduction and water resource conservation, we regularly monitor our progress toward our targets to ensure that we are up-to-date on the latest status. In addition, in 2022, there were no violations of environmental laws or ordinances as in the year before last.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

Our Response to the TCFD Proposal

In April 2021, Renesas [declared its support](#) for the recommendations of the **Task Force on Climate-related Financial Disclosures (TCFD)** and also joined the **TCFD Consortium of Japan**. Based on the TCFD framework, we also make every effort to disclose information about the risks and opportunities to our business posed by climate change including “Governance,” “Strategy,” “Risk Management” and “Indicators and Targets.” We have also developed a business strategy that further takes climate change into consideration and made strategic decisions to reduce risks and maximize opportunities brought by climate change ([Learn more](#)).



- 
 Contents
- 
 CEO Message
- 
 About Renesas
- 
 Sustainability Approach
- 
 Environmental
- 
 Social
- 
 Governance
- 
 Appendix

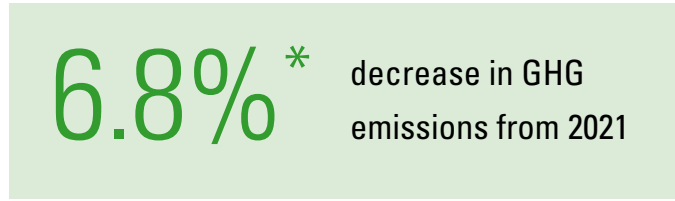
Our Commitment to Carbon Neutrality

Renesas Aims to Become Carbon Neutral by 2050 to Minimize the Impact of Climate Change

As an interim target, we have set a goal for 2030 to reduce greenhouse gas emissions from business activities (Scope 1 and 2) by 38% compared to 2021 levels. This is in line with the 1.5°C target (an effort to limit the increase in global average temperature to 1.5°C compared to pre-industrial revolution levels). We are committed to having 70% of our suppliers (by emissions covering Category 1) set science-based targets by 2026 (Scope 3).

We plan to achieve our goal by reducing the emission of PFC gas – a greenhouse gas that heavily impacts the environment – and meeting the domestic electrical and electronics industry targets in Japan and the energy intensity reduction target in accordance with the Energy Conservation Law. These initiatives also include expanding the use of reusable energy at our manufacturing sites.

In August 2022, the [Science-Based Target initiative \(SBTi\)](#) certified our mid-term targets ([announced on August 25, 2022](#)).



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION



* Figures were revised on July 1, 2023.
Please refer to the [Editing Policies](#) for details.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

OUR COMMITMENT TO CARBON NEUTRALITY CONTINUED

SBTi-Certified Renesas GHG Emissions Reduction Targets

Categories of GHG emissions	Level	Target
Scope 1 + Scope 2	1.5°C	Renesas to reduce GHG emissions by 38% in 2030, compared to 2021 levels
Scope 3	WB2.0°C	Suppliers (including outsourcing partners) that account for 70% of GHG emissions in Category 1 of Scope 3 to set Science Based Targets for GHG reductions by 2026

- “Scope 1” refers to direct greenhouse gas emissions from the activities of a company.
- “Scope 2” refers to indirect emissions from electricity, heat, and steam purchased and used by a company.
- “Scope 3” refers to all indirect emissions not covered by Scope 1 or Scope 2, produced by third parties for the purpose of a company’s activities.
- “Scope 3 Category 1” refers to the products and services purchased by a company.
- “WB 2.0°C (well-below 2.0°C)” refers to the GHG reduction targets to keep a global temperature rise well-below 2.0°C compared to pre-industrial revolution levels.

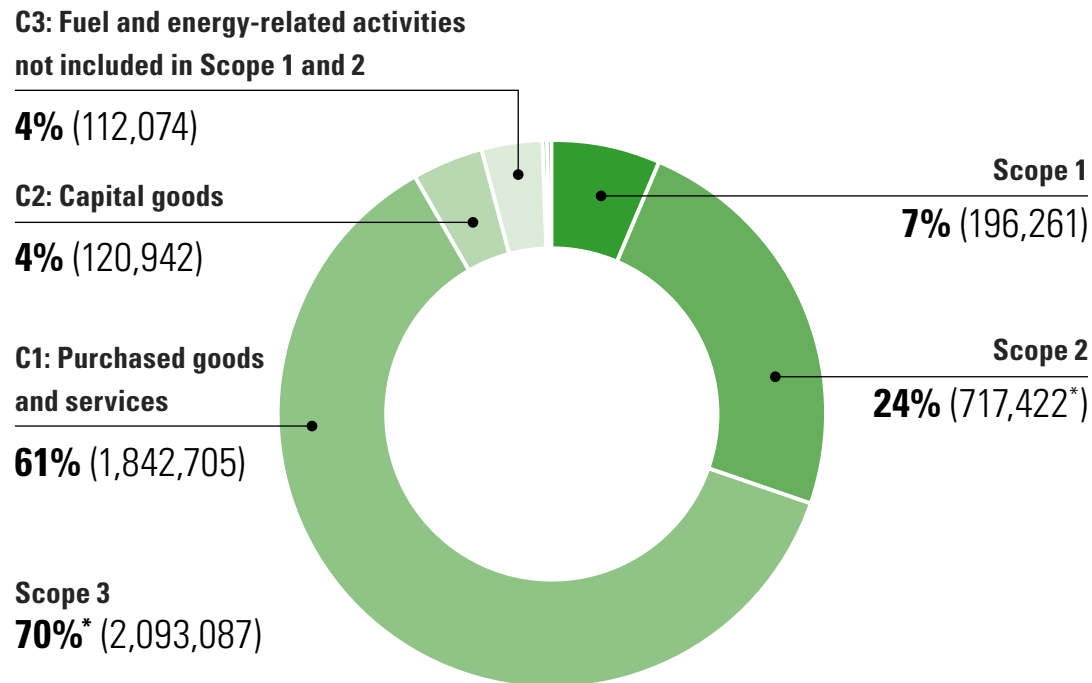
- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

OUR COMMITMENT TO CARBON NEUTRALITY CONTINUED

Environmental Impact of the Entire Value Chain

In order to understand the environmental impact of our business activities including the value chain, we have calculated the amount of greenhouse gas (GHG) emission from scope 1 through 3 based on the GHG protocol.

2022 Renesas' GHG Emissions by Scope (t-CO2)



See [Appendix \(Environmental Data\)](#)

* Figures were revised on July 1, 2023. Please refer to the [Editing Policies](#) for details.

OUR COMMITMENT

Renesas' efforts in Climate Change Initiatives contribute to these Sustainable Development Goals targets:



7.2

By 2030, increase substantially the share of renewable energy in the global energy mix



9.4

By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally-sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities



13.3

Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Conserving Water

At Renesas, we regularly monitor information on water intake and usage by water source and wastewater discharge by destination at all of our manufacturing sites. In addition, we manage wastewater quality in compliance with local and governmental laws and regulations.

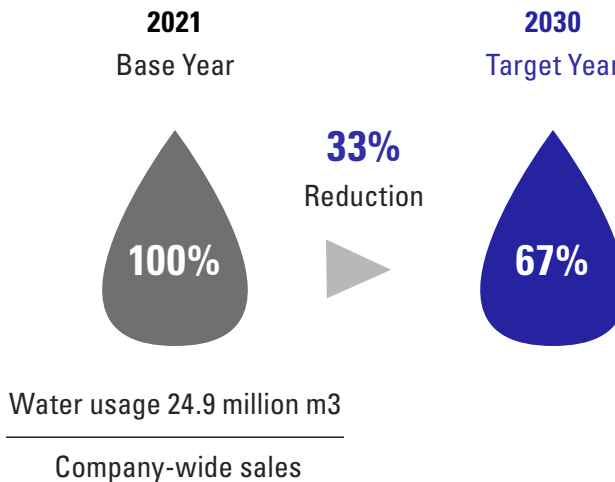
In addition, we are striving to improve the recycling rate and efficient use of water, and the entire group is working to improve the total amount of water used per revenue. At manufacturing sites located in areas where water risks are expected, we continue to make efforts to minimize the impact on the ecosystem of the region by setting and implementing improvement targets for water use per production related revenue.

Water Resource Conservation Policy and Targets

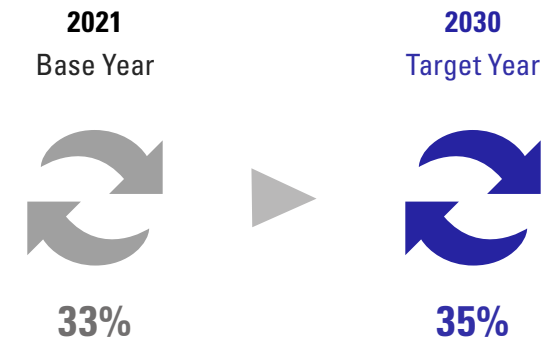
- Improving water utilization efficiency as a means to protect water resources globally
- Expand the recycling rate for efficient use of water
- Promote water resource conservation in areas with high water risks (areas where sufficient water supply is at risk in the neighborhood.)

Targets

TOTAL AMOUNT OF WATER USAGE PER REVENUE



WATER RECYCLING RATE



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

CONSERVING WATER CONTINUED



Ongoing Initiatives

- Improve the water utilization efficiency of the Renesas Group by 33% (basic unit improvement, 2030 target, based on the 2021 level).
- Start on-site verification to increase the recycling rate at the Naka Factory to 30%, with a goal of 35% recycling rate (2025 target).
- Set improvement targets for water use per production related revenue (based on shipment value) at manufacturing sites with high water risks and strive to conserve water resources.

Community Engagement

With a goal to conserve water resources, Renesas is working to resolve water-related issues through collaboration with stakeholders in the watersheds of our manufacturing sites. Especially at our manufacturing site in Suzhou, China, we are jointly managing and reporting information such as flow rate and pH related to wastewater discharge to the Environmental Protection Bureau every hour on an online monitoring system. This is done as a safety measure to conserve water resources and safely drain wastewater. Both of our two manufacturing sites in China (Beijing and Suzhou), which are designated as water risk areas, achieved their annual targets for water withdrawal per unit of sales.

Collaboration with the Suppliers, Communities, and the Government

PARTNERSHIP WITH GLOBAL SUPPLIERS

Renesas joined the [Responsible Business Alliance \(RBA\)](#) in 2021 and revised the [Renesas Supplier Code of Conduct](#). Among the items specified in this Code of Conduct, the following are required for water management and we ask our suppliers to support them. We have received the consent and approval of business partners (64 companies) for this Code of Conduct, as well as numerous suppliers.

- Document, characterize, and monitor water sources, water use and discharge, discover water-saving opportunities, and implement water management programs to control pollution routes
- Characterize, monitor, and control all wastewater and implement necessary treatments before discharge or disposal
- Regularly monitor wastewater treatment systems and water tanks to ensure optimal operation and compliance with regulations



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

CONSERVING WATER CONTINUED

Participation in Water Project by the Ministry of the Environment in Japan

Renesas joined the “Water Project” in February 2022 as part of its ongoing efforts to conserve water resources. The “Water Project” was launched by the Ministry of the Environment of Japan as a public-private partnership initiative to increase commitment to maintain or restore a healthy water cycle based on the Water Cycle Basic Law that took effect in 2014.



Through this initiative, Renesas will introduce our efforts to conserve water resources and share information about the importance of water resources and our contributions.



Online monitoring system of wastewater discharge

江苏神彩科技股份有限公司				
污水实时数据				
	累计流量(吨)	瞬时流量(L/s)	监测时间	
	67382	4.08	2021-11-17 11:14:59	
污染物实时数据				
因子名称	实测值	数据单位	设备状态	监测时间
化学需氧量	32.700000	mg/l	待机	2021-11-17 10:00:00
PH	6.43		正常	2021-11-17 11:14:59
水温	25.0	°C	正常	2021-11-17 11:14:59
氨氮	0.024000	mg/l	正常	2021-11-17 10:00:00

OUR COMMITMENT

Renesas’ efforts in Conserving Water contribute to these Sustainable Development Goals targets:



6.3

By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4

By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.6

By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.B

Support and strengthen the participation of local communities in improving water and sanitation management

Chemical Substance Use Management

Renesas conducts various assessments through our green procurement activities as well as the chemical substance database based on legal and regulatory information. By tracking the total volume of chemical substances used, we are better able to control and reduce the use of these substances and emissions in an effort to minimize hazardous waste.

Understanding the Use and Emission Volume and the Introduction of Management Categories

Considering legal and regulatory trends related to substances of concern and customer requests, we classify chemical substances into four categories and manage them in each stage of the manufacturing process, as well as those contained in final products.



SELECTION/PURCHASE STAGE OF COMPONENTS/MATERIALS*









“Chemical Substance Management System” used in conjunction with company-wide purchasing information to accurately manage income and expenditures, even for small portions handled. Also used to promptly respond to customer inquiries regarding the environmental impact of products.

*Including containers, packing materials, and accessories



MANUFACTURING PROCESS

Guidelines established to comply with environmental laws related to chemical substances, company regulations, and environmental accident prevention, and to strengthen chemical substance management across our sites and offices.

- 
 Contents
- 
 CEO Message
- 
 About Renesas
- 
 Sustainability Approach
- 
 Environmental
- 
 Social
- 
 Governance
- 
 Appendix

CHEMICAL SUBSTANCE USE MANAGEMENT CONTINUED

Compliance with Environmental Laws and Regulations

Renesas obtains legal and regulatory information of major countries to ensure compliance with environmental laws and regulations related to our products, reflect them in our products, and provide our customers with information on chemical substances in a timely manner.

Substances listed in the appendix to POPs Convention*, which are required to comply internationally, are reflected in laws such as the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture (Chemical Substance Control Law) in Japan, and the POPs Convention is guaranteed.

When substances designated in Annex A (Elimination) in the POPs Convention are reflected as Class 1 Specified Chemical Substances under the Chemical Substances Control Law, we classify these chemical substances in the “Prohibited Substances” category under Renesas Management of Chemical Substances. We share them globally and monitor them diligently to ensure compliance.

* POPs Convention: Stockholm Convention on Persistent Organic Pollutants

OUR COMMITMENT

Renesas’ efforts in Chemical Substance Use Reduction contribute to these Sustainable Development Goals targets:



12.4

By 2020, achieve the environmentally-sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

Renesas’ Definition of Chemical Substances

PROHIBITED SUBSTANCES

Substances that are prohibited from being contained in products and used in the manufacturing process

SUBSTANCES TO BE REDUCED

Substances to be reduced by setting voluntary targets for product content and usage in the manufacturing process and emissions in the environment

SUBSTANCES TO BE MANAGED

Substances for which the amount of use, inventory, emissions and movements should be controlled

CONSTITUENT SUBSTANCES

Substances that need to be understood as constituent materials



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Waste Management

To maintain a waste recycling rate at least 90% globally*, the Renesas Group continuously focuses on the **3Rs (“reuse,” “reduce” and “recycle”)** to maintain the waste recycling rate at 90% or more globally. In 2022, a waste recycling rate at our global bases of 92% met our target of 90% or more.

* *Recycling rate (%) = 100 - (Final disposal amount ÷ Total amount of waste & valuable emissions) x 100. Proper processing, such as thermal recycling and neutralization treatment, is also included.*

Recycling Initiatives

Waste Materials	Examples of Recycling
Sludge	Roadbed materials, raw materials for cement, recycled sand, raw materials for metal refining
Waste Oil	Incinerator combustion aid, recycled oil, raw materials for cement
Waste Acid	Recycled sulfuric acid, wastewater treatment, fuel conversion, raw materials for cement, raw materials for metals
Waste Alkali	Fuel conversion, raw materials for cement, raw materials for metals
Waste Plastics*	Incinerator combustion aid, solid fuel, raw materials for plastics
Metal Scraps*	Raw materials for metals
Glass and Porcelain Scraps	Raw materials for glass, raw materials for cement, tiles, lightweight aggregates
Product Waste*	Raw materials for silicone
Precious Metals*	Raw materials for precious metals
Paper	Raw materials for recycled paper
Wood Chips	Raw materials for paper, fertilizers, fuel
Styrofoam	Paint and mortar aggregates

* Including scrap wafers generated during the production process and products that are considered defective.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

WASTE MANAGEMENT CONTINUED

2022 Major Initiatives (including ongoing activities)

REDUCTION OF PLASTIC WASTE (RESPONSE TO THE NEW PLASTIC RESOURCE CIRCULATION ACT IN JAPAN)

- Reusing or recycling of plastic packaging materials (tray) and plastic cases
- Reducing plastic waste by increasing the size of BGA package
- Reducing the amount of cushioning material used in cardboard shipping boxes by promoting full cartoning. (Reduction of waste plastic generated by customers) Fractional packing for small orders.

OVERALL WASTE REDUCTION ACTIVITIES

- Valuable waste liquid and activities to reduce the amount of wastewater treatment sludge
- Promotion of waste reduction activities among teams participating from all Japanese sites

OUR COMMITMENT

Renesas' efforts in Waste Reduction contribute to these Sustainable Development Goals targets:



3.9

By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination



11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management



12.4

By 2020, achieve the environmentally-sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment



12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse



15.3

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4

By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Eco-Product Initiatives

Renesas is committed to eco-product initiatives and creating environmentally-conscious products and solutions that contribute to energy conservation and efficiency.









Creating Environmentally-Conscious Products

In order to create environmentally-conscious products, it is important to reduce the environmental impact at all stages of the product lifecycle, from development, procurement, manufacturing, use and disposal. Our eco-products are the results of product environmental assessments (Note 1) which evaluate the total environmental impact reduction measures (Product Stewardship). During these product environment assessments, our products are tested and evaluated at two stages: at the development stage and before mass production.

In addition, we have made product environmental assessments as part of the requirements in new product development, and we are working to raise internal awareness of the importance of product stewardship through training for project leaders and future leaders involved in new product development.

Note 1: Currently, the product environmental assessment is conducted only for former Renesas products, but we are considering expanding the scope in the future.



- 
 Contents
- 
 CEO Message
- 
 About Renesas
- 
 Sustainability Approach
- 
 Environmental
- 
 Social
- 
 Governance
- 
 Appendix

ECO-PRODUCT INITIATIVES CONTINUED

Eco-Product Initiatives at Each Stage

DEVELOPMENT

- Product environmental assessment
- Environmentally friendly design that considers LCA



PROCUREMENT

- Promote green procurement by not procuring materials or subsidiary materials that have high environmental loads



PRODUCTION

- Conserve energy by shortening production processes
- Properly manage chemical substances in production sites



USE

- Design energy-saving semiconductor products (e.g., low power consumption during standby)
- Design devices that are integrated into customers' equipment to save energy



DISPOSAL

- Eliminate specified chemical substances
- Reduce waste by making products smaller and lighter



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ECO-PRODUCT INITIATIVES CONTINUED

Environmental Assessments of Products

We create environmentally-conscious products by incorporating product environmental assessments into the product development and design flow, to evaluate the degree of improvement in environmental load. In this assessment, we make comparisons between our target products with indexed previous generations of the products (Note 2) based on eight criteria, including weight reduction, product safety, and whether they are energy saving.

The outcome of the assessment is determined by the design department developing the product as well as the Environmental Promotion Department at the headquarter office of Renesas as a third-party assessor. If the outcome determines that any of the three categories below applies, the sale of the product is prohibited in principle.

- If a prohibited material is used in the product or in the manufacturing process
- If a new material used in the product or in the manufacturing process is not SDS (Note 3) registered
- If the preliminary examination of any new materials used in the manufacturing process has not been conducted

In addition, if the environmental performance of a product has not improved in comparison to the indexed product, the design department must consider making improvements to the product or decide whether the development should continue.

The steady promotion of the environmental assessment increases the safety and trust of Renesas' semiconductor products, as well as to further improve the environmental performance of the products themselves. This will ultimately lead to reducing the environmental impact for the final customers using our finished products.

Eight Criteria for Product Environmental Assessment

Safety evaluation	Resource and energy-saving evaluation
Long life evaluation (reliability evaluation)	Weight reduction evaluation
Safety assessment (evaluation of controlled chemical substances, compliance with laws and regulations)	Energy saving evaluation
Information disclosure evaluation	Packaging material evaluation
Production process evaluation	Distribution evaluation

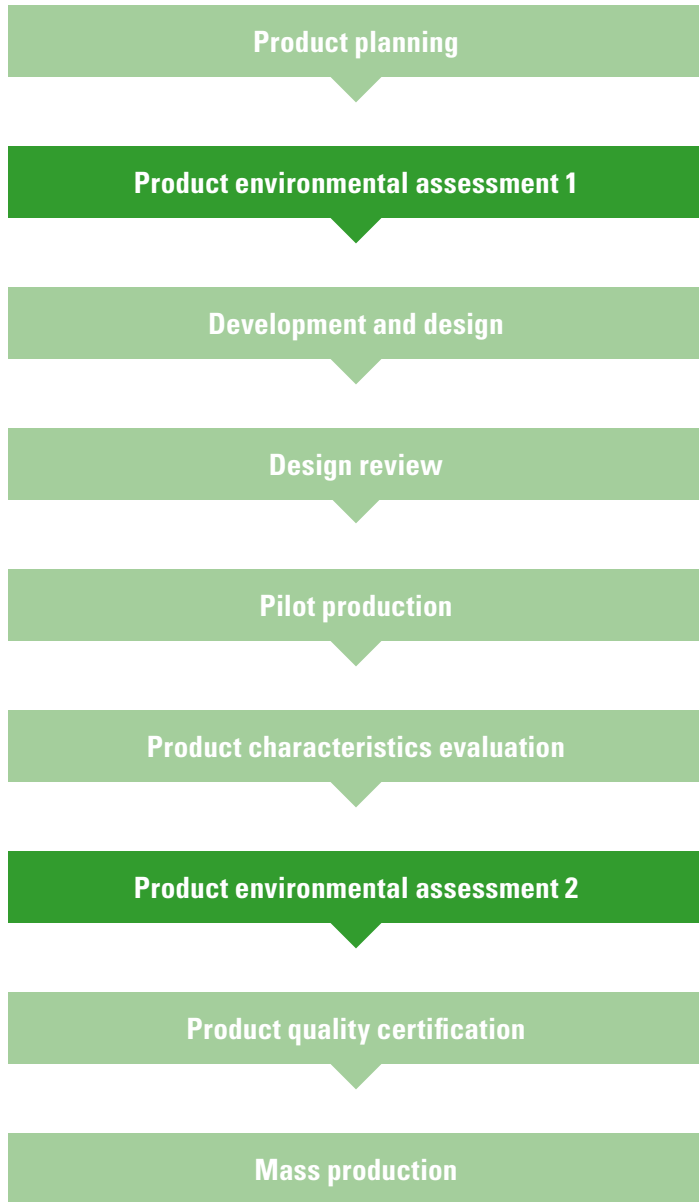
Note 2: Previous generation refers to indexed products that are one generation prior but have almost the same purpose, function and performance as the new product. However, if there are no previous generations of a product, the new product itself is considered as the index product.

Note 3: Safety Data Sheet (SDS) refers to the information document provided by supplies on the properties of chemical substances and the handling of materials that contain hazardous substances that may be dangerous or harmful.

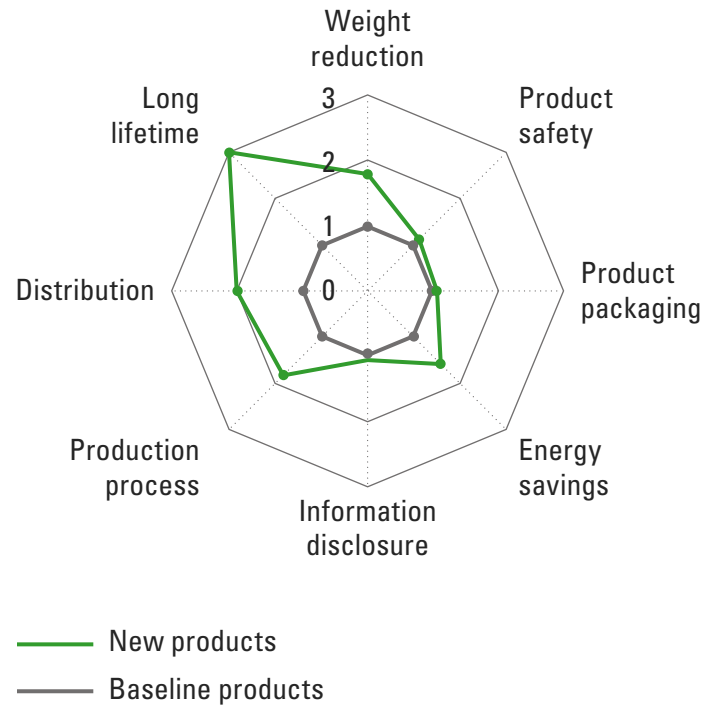
- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

ECO-PRODUCT INITIATIVES CONTINUED

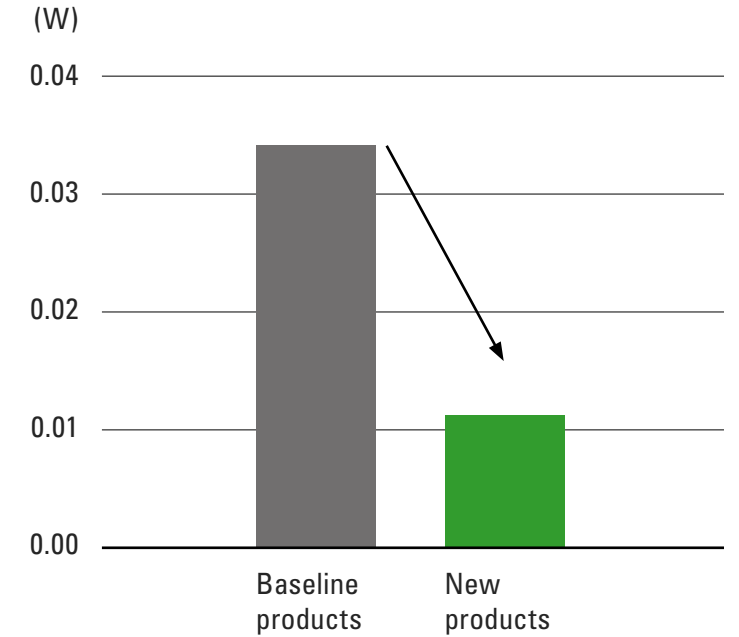
- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix



Example of Product Environmental Assessment Result Chart



Example of Energy Consumption Comparison



Renesas Green Devices

In order to promote research and development (R&D) and design of products that support the creation of environmentally-conscious products based on the Environmental Action Guidelines in all stages of the product life cycle, products that greatly contribute to the reduction of environmental impact are certified as “Renesas Green Devices.”

Green Devices are certified products that have completed the development stage but have not yet been mass produced. The certification process is basically as follows: Firstly, based on the results of the product environmental assessments, we confirm whether the environmental performance of the target product is more superior to the indexed product in the three categories of resources (mass), energy (energy consumption) and chemical substances (quantity of substances used by Renesas that are subject to reduced usage). Secondly, if the target product is determined to be superior to the indexed product and the improvement rate is over 10%, the product is certified as “Renesas Green Devices.” In fiscal year 2022, Renesas Green Devices accounted for 94% of new product development, and approximately 60% of total sales (Note 5), including affiliated products.

Note 4: Percentage of Renesas Green Devices among the number of former Renesas products developed in 2022.

Note 5: Percentage of Renesas Green Devices (former Renesas products developed and mass-produced in 2022 and their affiliated products) to sales of former Renesas products in 2022.

Evaluation criteria	Comparison between indexed product and new product	Renesas Green Devices
Resource-saving evaluation	<ul style="list-style-type: none"> Product volume Product mass 	10% or more reduction
Chemical substance content evaluation	<ul style="list-style-type: none"> Power consumption during operation Standby power consumption 	
	<ul style="list-style-type: none"> Percentage improvement of reduced substances (lead) in products 	94% of Renesas Green Devices in new product development (Note 4)

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental**
- Social
- Governance
- Appendix

RENESAS GREEN DEVICES CONTINUED

Lead-Free Products within Renesas Green Devices

Renesas' semiconductor products are used in many products that are marketed around the world. To comply with environmental laws and regulations related to our products, we research the laws and regulations of major countries, apply the information in our group products, and communicate with our customers on the chemical substance content in a timely manner. In addition, Renesas is actively working to reduce the use of lead-free products, as the demand for semiconductor products and electronic devices continues to grow.

	Proportion of number of lead-free products developed
New development of Renesas Green Devices	91%

[Click here](#) to learn about our compliance with environmental laws and regulations.

[Click here](#) to learn about our lead-free initiatives.

Examples of Renesas Green Devices and Super Green Devices

Products certified as "Renesas Green Devices" and "Renesas Super Green Devices" for having superior environmental performance among hundreds of products developed annually at Renesas are registered in a database. Some of the products that can be publicly disclosed are uploaded onto the Renesas website. Going forward, Renesas will continue to promote the creation of environmentally-conscious products by recognizing green device certified products in award systems and more.

Renesas Super Green Devices

Among Renesas Green Devices, products with superior performance are certified as "Super Green Devices."

Evaluation criteria	Comparison between indexed product and new product	
Resource-saving evaluation	<ul style="list-style-type: none"> Product volume Product mass 	50% or more reduction
Energy-saving evaluation	<ul style="list-style-type: none"> Power consumption during operation Standby power consumption 	
Chemical substance content evaluation	<ul style="list-style-type: none"> Percentage improvement of reduced substances (Pb) in products 	



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RENESAS GREEN DEVICES CONTINUED

Introduction of Renesas Green Devices and Super Green Devices (products developed in 2021 and 2022)

Excerpt from products that can be publicly disclosed

Product name	Type	Application	Feature
RM7F31872BAGBM RM7F30972BRGBM	Low power high density / Ultra high speed memory (DRAM)	Network devices (Router/Switch)	Optimized high-speed random access for low latency
RAA305380GBM RAA305370GBX RAA305390GBX RAA305391GBX	High-performance, low-power MPU & Driver	Smartphones	Image stabilization function with built-in smartphone, Gyro sensor I/F and actuator driver
R9A02G011GBG	USB Power Delivery Controller	Industry/Consumer	A Universal Serial Bus (USB) Power Delivery Controller based on the USB Power Delivery Specification Revision 3.1 and USB Type-C™ Cable and Connector Specification Revision 2.1 Built-in CC-PHY and CC-logic, flash ROM, oscillator, power-on reset circuit, etc. that allow significant reduction of the number of external components and various applications where board space is limited. Learn more about USB PD Controller
R5F5671***BP R5F5671***LJ R5F5671***LK	32 bit high-performance and high-efficiency MCU RX671 Group	Industry/Consumer	Ultra-small package with high performance, industry-leading power efficiency and large-capacity memory, reducing the environmental impact. Learn more about RX671 Group



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RENESAS GREEN DEVICES CONTINUED

Product name	Type	Application	Feature
R9A07G075xxxGBG (RZ/T2M)	High-speed Processing and Realtime Control MPU	Industry/Consumer Motor Control	RZ/T2M is an industry-leading high-performance multi-function MPU that realizes high-speed processing, high precision control, and functional safety required for industrial equipment such as AC servos and industrial motors. Learn more about RZ/T2
R9A07G084M04GBG (RZ/N2L)	Ethernet communication microprocessor (MPU) for Integrated TSN-Compliant 3-Port Gigabit Ethernet Switch to Implement Industrial Ethernet and TSN	Ethernet work controller for general industry	Integrated with large-capacity RAM with ECC, $\Delta\Sigma$ I/F, A/D converter, PWM timer, UART, CAN, etc., realizing application processing and network processing on a single chip. Learn more about RZ/N2L
R7F100GGN3CNP R7F100GGL3CNP R7F100GGK3CNP R7F100GGN2DNP R7F100GGL2DNP R7F100GGK2DNP	Low power RL78/G23 (memory, by temperature range) 16Bit MCU	RL78 general-purpose microcontroller for home appliances, consumer equipment, and industrial equipment	In addition to the industry's lowest level of low current consumption, the SNOOZE mode sequencer significantly reduces power consumption during intermittent operation. 32 MHz, wide operating voltage range from 1.6 V to 5.5 V, various packages from 30 to 128 pins, and up to 768 KB of flash memory. Learn more about RL78/G23
R7FA6M4AF2CBM (RA6M4) R7FA6M5AH2CBM (RA6M5)	RA Family Arm® Cortex®-M based 32Bit MCU	industry/consumer High performance microcontroller with TrustZone®	It supports partner ecosystems such as various RTOS and middleware. Suitable for IoT applications requiring Ethernet, security and low power consumption. Learn more about RA family



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RENESAS GREEN DEVICES CONTINUED

Product name	Type	Application	Feature
R7F102GGE3CFB R7F102GGE2DFB R7F102GGC3CFB R7F102GGC2DFB (RL78/G22)	Low power consumption RL78/G22, 16-bit MCU	RL78 general-purpose microcontroller for home appliances, consumer equipment, and industrial equipment	In addition to the industry's lowest level of low current consumption of 37.5 μ A/MHz when CPU is running and 200 nA when CPU is stopped, it is equipped with a wealth of capacitive touch channels. Equipped with various packages from 16 to 48 pins and 32KB to 64KB flash memory. Learn more about RL78/G22
R9A06G1502GNK R9A06G1502GNH R9A06G1502GNE (R9A06G150)	32Bit MCU for RISC-V based voice control HMI	Consumer equipment, industrial equipment HMI solutions	Working with ecosystem partners to provide a complete solution for keyword spotting recognition systems. Integrates advanced digital/analog microphone input and playback interfaces. Learn more about R9A06G150

Environmental Contribution of Renesas Green Devices

Renesas aims to make people's lives easier through our products and solutions, and contribute to building a future that creates a better world. In a world where everything around us is intelligent and interconnected, advanced computing performance is a must. At the same time, the demand for energy efficiency and robust safety and security will continue to increase. By providing our customers Renesas Green Devices that meet these growing demands, we can foster a greener and more sustainable society.

Renesas Green Devices not only reduce the use of resources, energy, and prohibited chemical substances in the product itself, but also contribute to improving the energy efficiency of customers' systems by incorporating our solutions into their products. We

also play a role in increasing energy efficiency of society, as our customers' products are used across many applications.

Renesas' core business is to foster a sustainable society by providing products and solutions in mission-critical business fields that form the basis of our society, such as automobiles, factory automation (FA), communication infrastructure, and medical and healthcare. Specifically, we will focus on developing low-power products with minimum environmental impact and products and solutions that make people's lives safer and more secure, and advancing research and development for innovation that supports them.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RENESAS GREEN DEVICES CONTINUED

Renesas Green Device Solutions that Contribute to a Sustainable Society (Note 6)

Renesas Green Devices		
Mission-critical business areas (Automotive, FA, communication infrastructure, medical, healthcare, etc.)		Other business fields
Clean Transportation	Energy Efficiency	
Smart Electric Vehicles Solutions	Smart Data Center Solutions	Other business solutions
Smart Autonomous Drive Solutions	Smart Cellular Solutions	
	Smart Society Solutions	
	Renesas Green Devices and Technology	

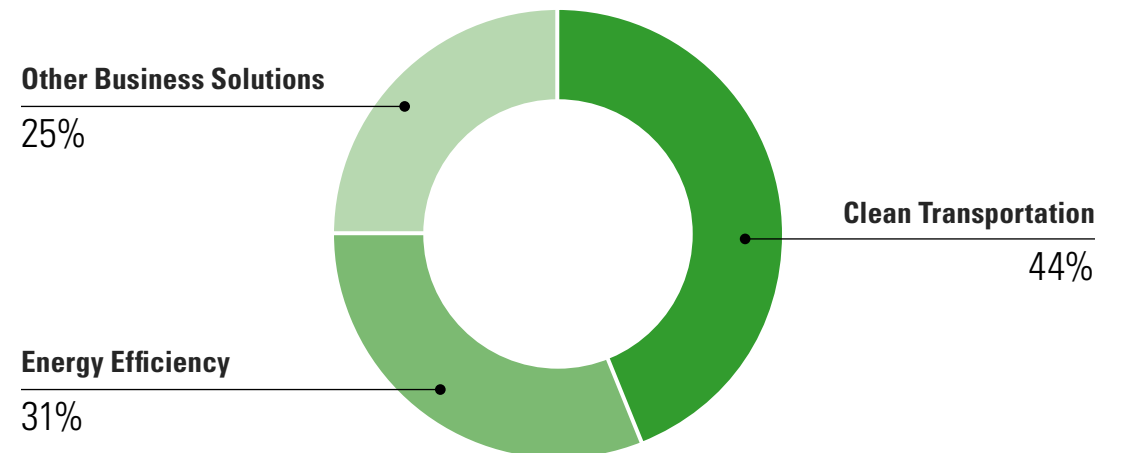
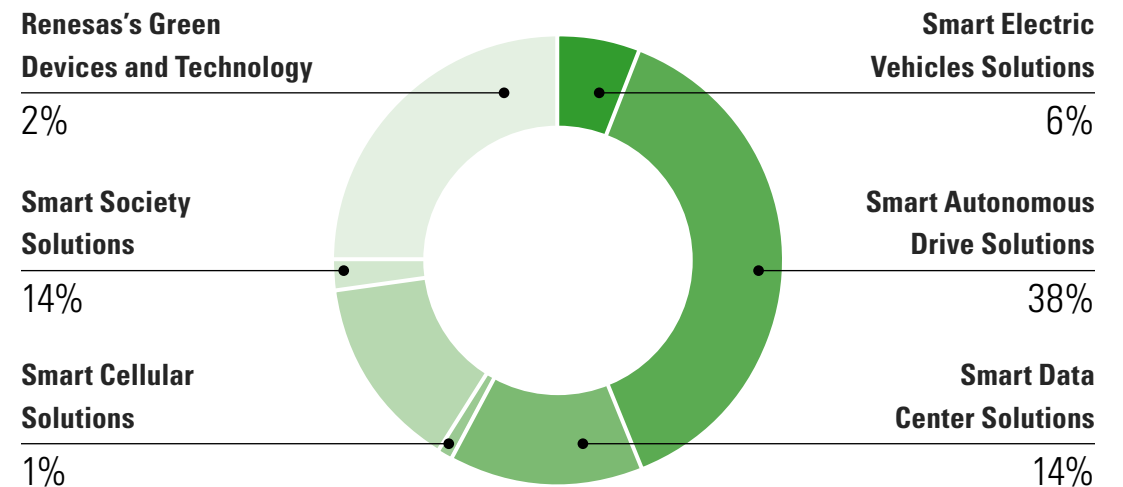
Read more about Renesas' products and solutions that contribute to a sustainable society through customers' systems [here](#).

Note 6: Solutions are classified according to the green eligibility category of the green bond framework effective in November 2021.

Note 7: Renesas Green Devices (former Renesas products and affiliated products developed and mass-produced in 2022) that can be classified as green-bond eligible solutions are extracted, and the sales of the classifiable products are used as the denominator for each solution. The proportion of products excluded from classification is 35%.

Sales Ratio of Renesas Green Devices by Solution (Note 7)

In 2022, 75% of Renesas' Green Device sales was for mission-critical business areas (green bond eligible solutions), of which 44% was for smart vehicle solutions and electric vehicles, and 31% for social infrastructure such as data centers and cellular.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RENESAS GREEN DEVICES CONTINUED

Product Environmental Quality in Supply Chain

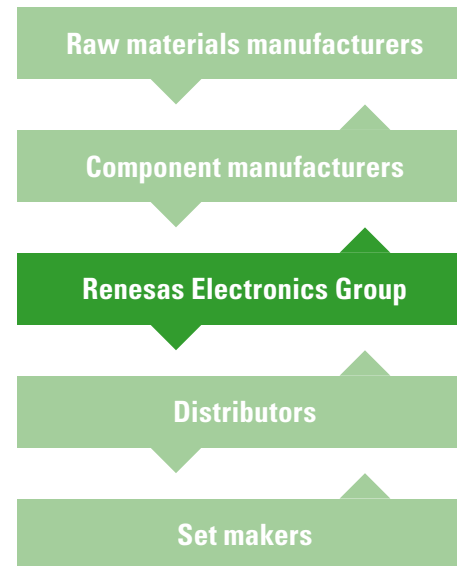
We believe that it is necessary for the entire supply chain to manage chemical substances contained in products throughout the process, from the selection of materials during development and design, to the prevention of pollution in the manufacturing process. For this reason, we ask suppliers to submit certificates and analysis data to confirm that prohibited substances are not used, and they adhere to such practices in supplier audits.

Distributors are requested to manage the chemical substances contained in the packaging materials they use. On the other hand, we also provide our customers with information on chemical substances contained in products and analysis data on prohibited substances according to the RoHS Directive to ensure that our products can be used safely. In addition, we share with customers our systems for managing chemical substances and the progress of our environmental activities.

[Click here](#) to learn about our environmentally-conscious supply chain initiatives.

[Click here](#) to learn about our green procurement.

[Click here](#) to learn about our environmental compliance.



OUR COMMITMENT

Renesas' efforts in Eco-Product Initiatives contribute to these Sustainable Development Goals targets:



12.4

By 2020, achieve the environmentally-sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Biodiversity Conservation Activities

Biodiversity Conservation Policy

Renesas' business sector, semiconductors, requires a large amount of water, resources, and energy for manufacturing, and relies heavily on various ecosystem services provided by biodiversity.

We are committed to protecting biodiversity, based on the fundamental environmental philosophy to conduct corporate activities that promote a balance between global environment preservation and the healthy lifestyle of people to realize a sustainable society. This is considered to be one of the most important items in our Environmental Action Guidelines.

Renesas' policy is to actively promote business activities that contribute to biodiversity conservation, such as the efficient resource use at manufacturing and business sites, and the provision of sustainable products and solutions. We would like to give the benefits from ecosystem services back to our local communities, while meeting our customers' needs.

Renesas Biodiversity Conservation Activities

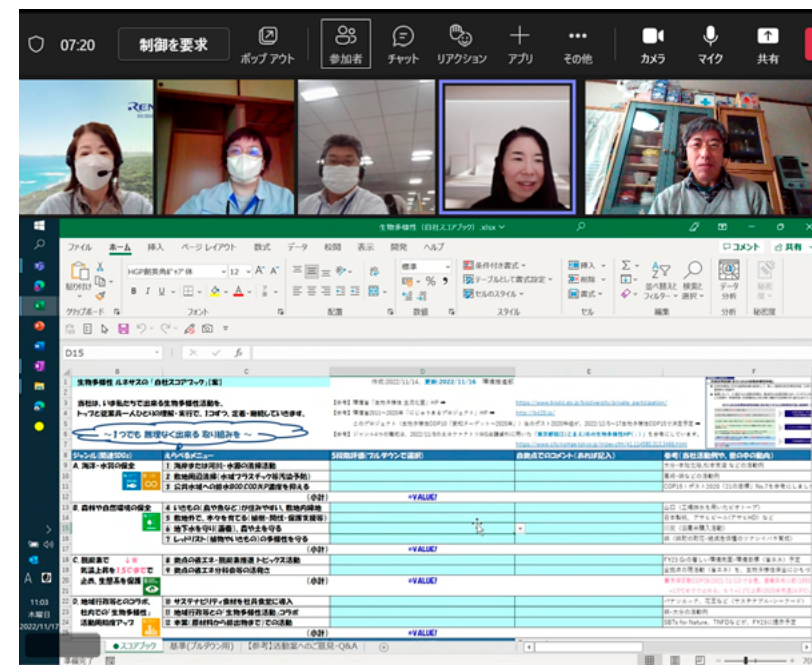
The following two points summarizes our achievements in 2022 and activities planned for 2023 and onwards.

- Created “[Renesas In-House Scorebook](#)” to visualize biodiversity activities
- Set June 5 every year (environment month in June) as “The Day of Renesas Group to think about biodiversity and SDGs” (tentative) and promote it both inside and outside the company.

Renesas Biodiversity Conservation Initiatives

LAUNCH OF THE BIODIVERSITY ACTIVITY TASK FORCE

In September 2022, Renesas launched a task force to evaluate activities, disseminate information globally, and actively promote additional activities in the future. We started biodiversity activities in December 2022.



BIODIVERSITY CONSERVATION ACTIVITIES CONTINUED

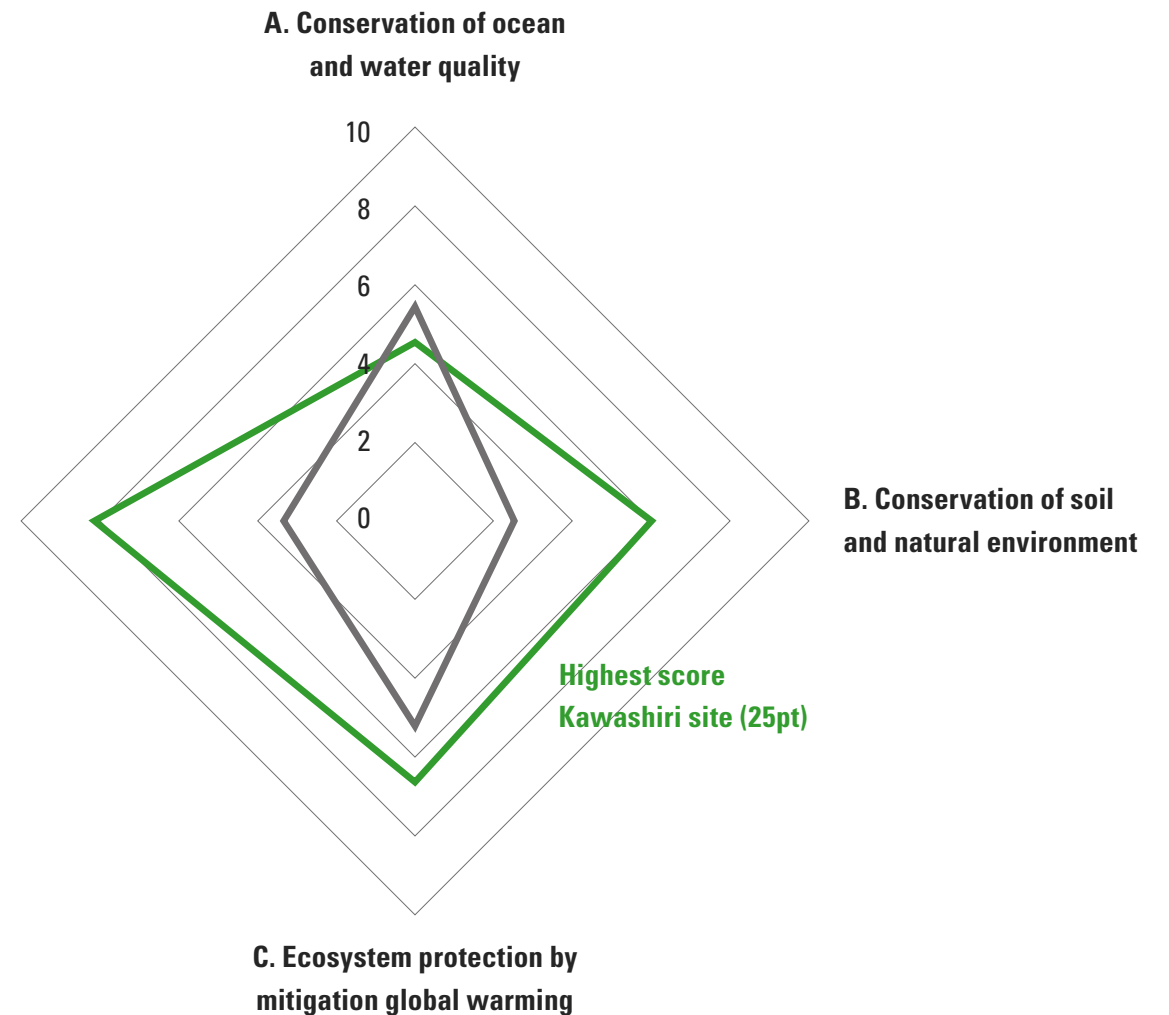
Renesas Biodiversity Activity Evaluation for 2022

2022 was the first year of the evaluation, and the average score of self-evaluation on biodiversity activities at each site was higher than that of “conservation of ocean and water quality” and “preservation of ecosystem.” We received lower scores for environmental preservation, cooperation with local governments, activities in our core business, and employee awareness-building.

In addition, when comparing sites, the Kawashiri Factory received the highest evaluation for its “no car commuting week” and the provision of recharged rice in the employee cafeteria. In addition, the Nishiki Factory, which has been cultivating endangered flower, “Tsukushiibara,” for more than 10 years, was also highly rated.

Going forward, Renesas will continue to promote visualization of biodiversity activities and information sharing on initiatives and activity know-how to contribute to biodiversity conservation as a whole.

Renesas Biodiversity Conservation Activities in 2022



Average score of 8 sites in Japan (Headquarters area, Naka, Takaski, Saijo, Kawajiri, Yonezawa, Oita, Nishiki)



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

BIODIVERSITY CONSERVATION ACTIVITIES CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Renesas Biodiversity Activity Results

Major activities in 2022



Participation in cleaning activities from all departments led by the factory manager (Kawashiri Factory)

A: Conservation of ocean and water quality

Kumamoto City is a rare “groundwater city” in Japan, where 100% of its tap water is supplied by groundwater. At the Kawashiri Factory, located in Kumamoto City, we regularly carry out beautification activities and work to conserve clean and abundant water resources.



Purchased recharged rice from the Kumamoto Groundwater Foundation (Kawashiri Factory)



Car-free commuting week held (Kawashiri Factory)

C. Ecosystem protection by mitigation global warming

The Kawashiri Factory conducts a “No Car Commuting Week.” We call on our employees to participate every month, tally the number of participants and the amount of CO2 reduction, and work to continuously reduce CO2 emissions.

In 2022, a total of 121 people participated, and the amount of reduction was 583 kg-CO2.

B: Conservation of soil and natural environment

D: Coordination with local governments, activities in the main business, employee awareness raising

The Kawashiri Factory participates in the “Water Offset” project of the Kumamoto Groundwater Foundation.

The water offset business protects Kumamoto’s abundant groundwater, while at the same time supporting agriculture, and is also an initiative of local production for local consumption that purchases and consumes local crops.

At the Kawashiri Factory, we are promoting activities to purchase recharged rice for our employees and provide part of the rice for the employee cafeteria as recharged rice with the cooperation of the cafeteria management company.

BIODIVERSITY CONSERVATION ACTIVITIES CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Conservation of endangered Tsukushiibara (Nishiki Factory)

B: Conservation of soil and natural environment

D: Coordination with local governments, activities in the main business, and awareness-raising of employees

Tsukushiibara (Tsukushi rose) is a type of rose unique to southern Kyushu, and is the town flower of Nishiki-cho, where the Nishiki Factory is located. Originally, it grows in colonies in riverbeds, etc., but due to environmental changes, its numbers have decreased, and in 2004 it was registered as an endangered species.

At the Nishiki Factory, we grow horsetail thorns on the plant premises as a biodiversity conservation activity. Beautiful flowers bloom from May to June every year, and are appreciated by everyone in the area.

C. Ecosystem protection by mitigation global warming

At the Nishiki Factory, we install green curtains every year. We are promoting energy-saving activities by blocking heat energy from solar radiation and suppressing rises in indoor temperatures.



Goya Green Curtain (Nishiki Factory)



Resumed cleanup activities that had been suspended due to the COVID-19 pandemic (Oita Factory)

A: Conservation of ocean and water quality

The Nakatsu Tidal Flat, the largest tidal flat in the Seto Inland Sea, is located near the Oita Factory. The Nakatsu tidal flat boasts the greatest biodiversity in Japan, and is also home to many rare species such as horseshoe crabs and green whiting.

For many years, the Oita Factory has participated in beach cleanups sponsored by the NPO Mizube ni Asobikai, striving to conserve biodiversity.

BIODIVERSITY CONSERVATION ACTIVITIES CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



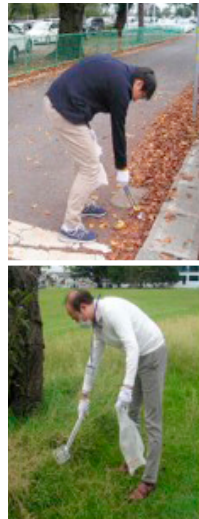
Social



Governance



Appendix



A: Conservation of ocean and water quality

The Naka Factory is located near the Naka River, one of the clearest streams in the northern Kanto region. The Naka River is a river rich in diversity, with a variety of fish species living in the middle reaches and a popular fishing spot near the mouth of the river where seawater is mixed.

Every month, the Naka Factory conducts cleaning activities around the factory. In 2022, we temporarily refrained from doing so due to the impact of COVID-19, but a total of just under 300 employees participated in the effort to protect the local environment.

Monthly cleaning activities (Naka Factory)



Saijo City Clean Walk (Saijo Factory)

A: Conservation of ocean and water quality

At the Saijo Factory, labor and management participate in the annual Saijo City Clean Walk in cooperation with the Ehime Toyo Association. In 2022, although the scale was reduced due to the influence of the new corona, 29 people participated and carried out cleaning activities.

While deepening exchanges with local residents, we are contributing to the creation of beautiful towns suitable for the pilgrimage.



Collecting semiconductor trays, magazines and reels (headquarters area)

D: Coordination with local governments, activities in the main business, and employee awareness-raising

In the headquarters area, we have started collecting semiconductor trays, magazines, and reels from our business sites that had been disposed of until now. At the same time, we are working to reduce and reuse waste plastic by starting to collect the plastic that was used as cushioning material for packaging.



Regular awareness-raising activities (headquarters area, etc.)

D: Coordination with local governments, activities in the main business, and employee awareness-raising

We regularly carry out employee awareness-raising activities through environmental education and in-house information dissemination at our head office and other bases.

BIODIVERSITY CONSERVATION ACTIVITIES CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

OUR COMMITMENT

Renesas' efforts in Biodiversity Conservation Activities contribute to these Sustainable Development Goals targets:



11.6

By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management



12.5

By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse



15.3

By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world



12.4

By 2020, achieve the environmentally-sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment



13.3

Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning



15.4

By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development



14.1

By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine litter and animal nutrition



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Social

Q&A with Julie Pope	53
Q&A with Shuhei Shinkai	54
Diversity, Equity and Inclusion.....	55
Investment In Human Capital.....	60
Commitment to Protecting Human Rights.....	61
Employee Health & Safety.....	65
Social Contributions Through Community Involvement	68
Engagement with Our Supply Chain and Partners	71



Q&A with Julie Pope



Julie Pope

Senior Vice President and Chief Human Resources Officer

Q: What were our key accomplishments in 2022?

We are proud of our 2022 accomplishments even in the face of war, inflation, energy scarcity, environmental impacts and the continued impacts of COVID-19. Our employees are our greatest asset and we have continued to invest in their growth and development. 2022 initiatives we launched include:

- Emergency funding and support to our employees in Ukraine.
- Additional workforce flexibility initiatives including options to work abroad.
- New talent acquisition approach to increase diversity and strengthen relationships with universities around the world.
- Successful onboarding of Reality AI and Steradian teams that joined through acquisitions.
- Launched new global employee trainings, combining self-guided and group learning formats.
- Technical training for engineers and customized training for first-time managers.

- International Women’s Day celebration (March 2022) and expanded the Women in Technology Employee Resource Group to all employees.
- Hosted employee seminars for Pride Month (June 2022) and Diversity Awareness Month (October 2022) with external DE&I experts.

Q: What progress and improvements did we make in terms of human rights?

We set the Renesas Group Human Rights Policy in 2021 and conducted the first human rights due-diligence process in 2022. We identified six key issues to be addressed during the process which included clarifications in the following areas: Safe and Healthy working Environment, Prohibition of Child and Forced labor, Working Hours, Responsible Minerals Procurement, Labor management Relations in Japan, Human Rights Education.

We strive to plan, execute, monitor, and disclose our actions and results in order to minimize these prioritized risks by country, region, company, and throughout the production process.

Q: What is your vision for “Renesas Culture” and how have you helped global employees understand and embody its values?

In 2022, we focused on further defining the behaviors we look for as part of our TAGIE (Transparent, Agile, Global, Innovative, Entrepreneurial) culture and how employees

can demonstrate those behaviors in their roles. We did this through a variety of channels, including launching a newsletter—TAGIE Times—that features interviews, videos, employees’ challenges, and contributions from senior leaders. We also conducted a survey to measure progress and addressed the issues raised as part of the survey through a series of measures.

In 2023, we will continue to embed the culture by making sure TAGIE is clearly articulated throughout the employee lifecycle—including recruitment, goal setting, development and performance management. We will measure our progress again through another survey.

Q: What are your strategic priorities for this year and why?

We have 3 key areas of focus in 2023:

- Enabling business growth and expansion through leadership effectiveness and manager enablement, supporting and facilitating M&A, delivering targeted organizational design and deploying strategic workforce planning.
- Talent engagement by attracting, engaging, rewarding, and retaining our best talent.
- Operational excellence by ensuring our HR organization is positioned to serve the employees through simplification, compliance and effective use of HR technology.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

Q&A with Shuhei Shinkai



Shuhei Shinkai
Senior Vice President and
Chief Financial Officer

Q: Could you share 2022 highlights from the divisions you oversee (Procurement, General Affairs, Corporate Finance)?

Ensuring supply chain resilience and a safe and healthy workplace has been our top priority. Building on the progress from 2021, we continued to engage with our suppliers, although the supply shortages required us to focus on meeting the immediate demand. As the situation started to ease, we shifted our focus toward discussing and implementing long-term sustainability activities together with our suppliers. Notable highlights about Supply Chain Engagement include:

- More than 90% of our suppliers responded to the Self-Assessment Questionnaire (SAQ) and agreed to our Supplier Code of Conduct. We also conducted in-person audits with select suppliers.
- Completed the audit of our suppliers that cover 59% of our purchasing volume for direct materials and Foundry/ Outsourced Semiconductor Assembly and Test (OSAT) based on the combined audit results from 2021.

- Educated suppliers about our latest policies and initiatives to garner support to achieve our global ESG goals.
- 81% of our suppliers delivering direct materials and Foundry/OSAT participated in the CDP Supply Chain program, and we were able to ascertain GHG emissions per supplier.
- Established a plan to disclose Scope 3 targets and follow up on progress from 2023 and onward.
- Confirmed that the smelters used for materials (3TGs: Tungsten, Tantalum, Tin, and Gold) we use are conflict free, as they were in 2021.

In 2022, we continued to feel the impact of COVID-19 globally. Since the outbreak, we have improved our management system to ensure our employees' Health and Safety. As a result, Renesas obtained ISO 45001 certification for our main production bases in Japan last year, and we're continuing the effort globally.

We have also been working hard to increase Social Contribution initiatives. As one of the highlights from last year, we donated funds to [The UN Refugee Agency \(UNCHR\)](#) to provide support to Ukraine and provided supplies and housing to our local employees.

Also, we improved our disclosure on Climate Change. For example, we expanded our reporting framework to align with Task Force on Climate-related Financial Disclosure (TCFD), adding a scenario-based analysis and additional

non-financial information about our opportunities and risks for the first time. Please visit our website for more details.

Q. What are your 2023 strategic priorities and how you plan on achieving milestones?

We will continue to increase our engagement with suppliers further this year. In addition to hosting supplier's meetings, we plan to set up a forum that enables two-way communication and a platform that allows suppliers to exchange best practices with each other.

We established a three-year plan and KPIs in 2021 to implement supplier audits that cover 80% of our procurement value for direct materials and Foundry/OSAT by the end of 2023. We are making steady progress to achieve this objective by year-end.

Regarding conflict minerals, we plan to disclose the investigation status of Mica and Cobalt beyond 3TGs.

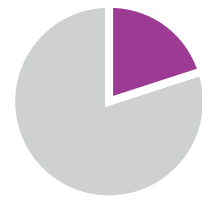
We will also continue to focus on the safety and health of our employees. In addition to our bases in Japan, we aim to obtain ISO 45001 certification for major production and design bases globally by the first quarter of 2024.

To expand our social contribution initiatives, we made donations earlier this year to aid people impacted by the major earthquake in Turkey and Syria. We plan to set goals and KPIs for our Corporate Social Responsibility initiatives and implement plans accordingly.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

Diversity, Equity and Inclusion

As a global company, Renesas enjoys the benefits of a highly diverse team. Our employees with diverse backgrounds bring unique experiences, perspectives and values. We ensure that our commitment to equal opportunities and the culture of inclusion is reflected in our management strategies, policies and employee benefits, as well as in a number of employee-focused initiatives and partnerships. Examples are listed below.



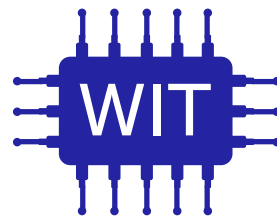
Renesas **Board Member Diversity**
Target of 20%



Global Semiconductor Alliance's
Women's Leadership Initiative pledge

WOMEN'S EMPOWERMENT PRINCIPLES

United Nations **Women's Empowerment Principles** (WEPs) pledge (April 2021)



Launch of the Diversity Promotion Group and various **employee resource groups** such as Women in Technology



Global partnership with **Inspiring Girls International** (France, UK)



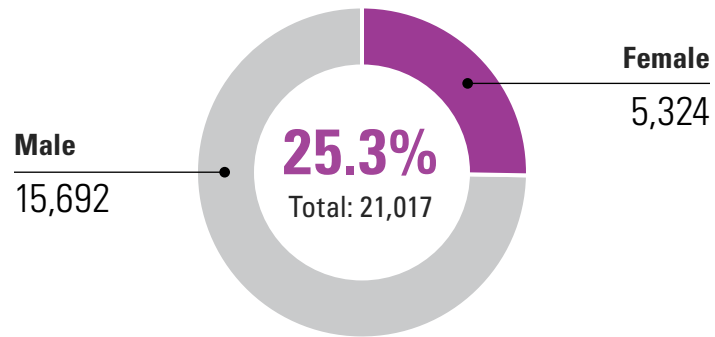
Group-wide efforts to promote employment of **diverse human resources** and **equal pay** for equal work

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

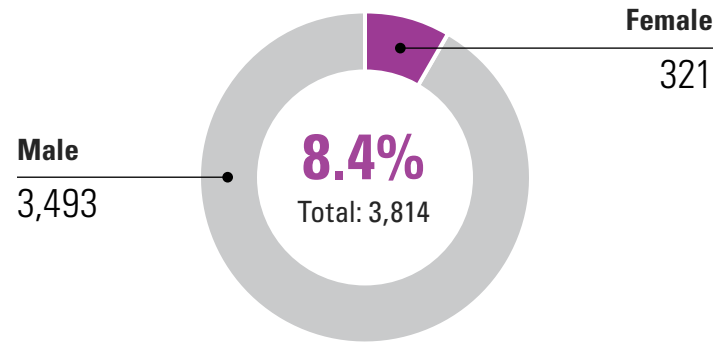
DIVERSITY, EQUITY AND INCLUSION CONTINUED

Ratio of Female Employees (2022)

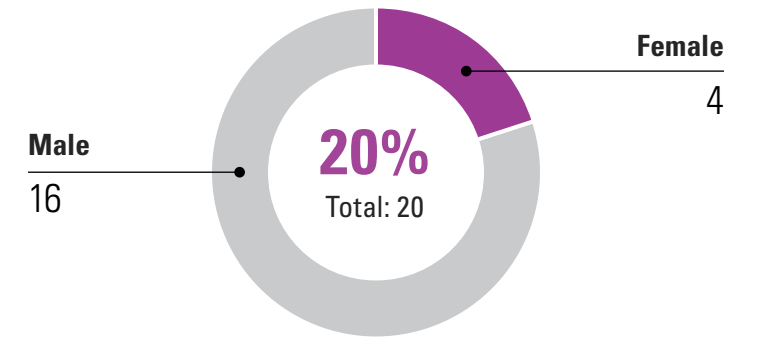
Global Workforce



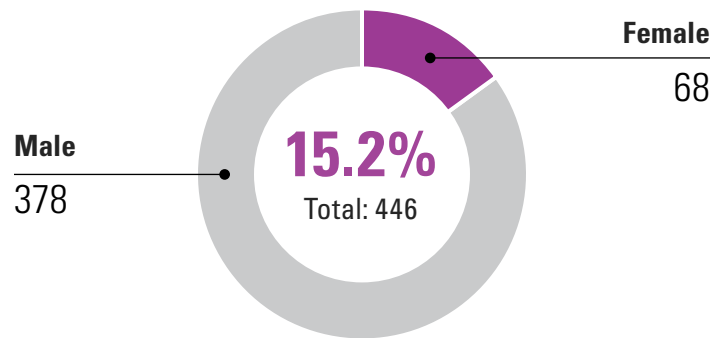
Managers



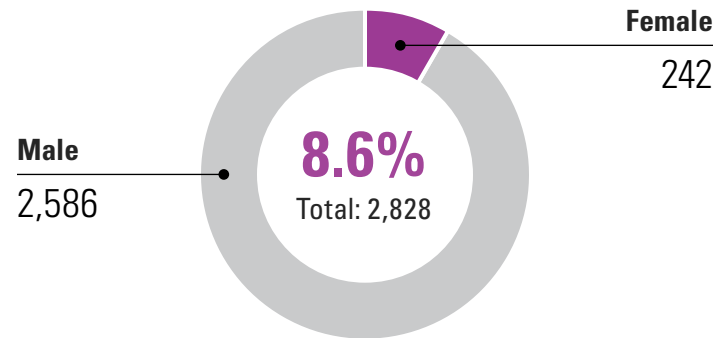
Leadership Team



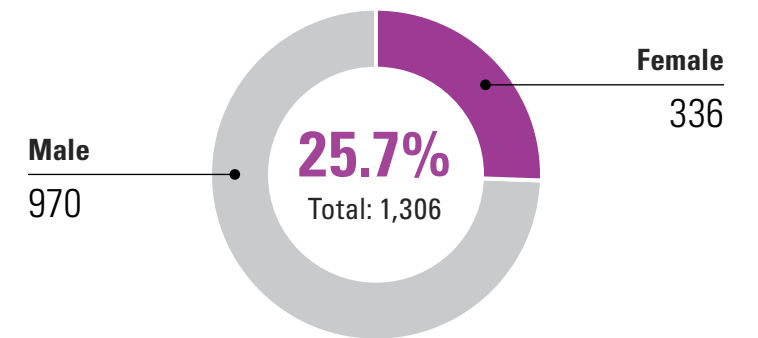
New Graduates Hire



Senior Managers



Experienced Professionals Hired

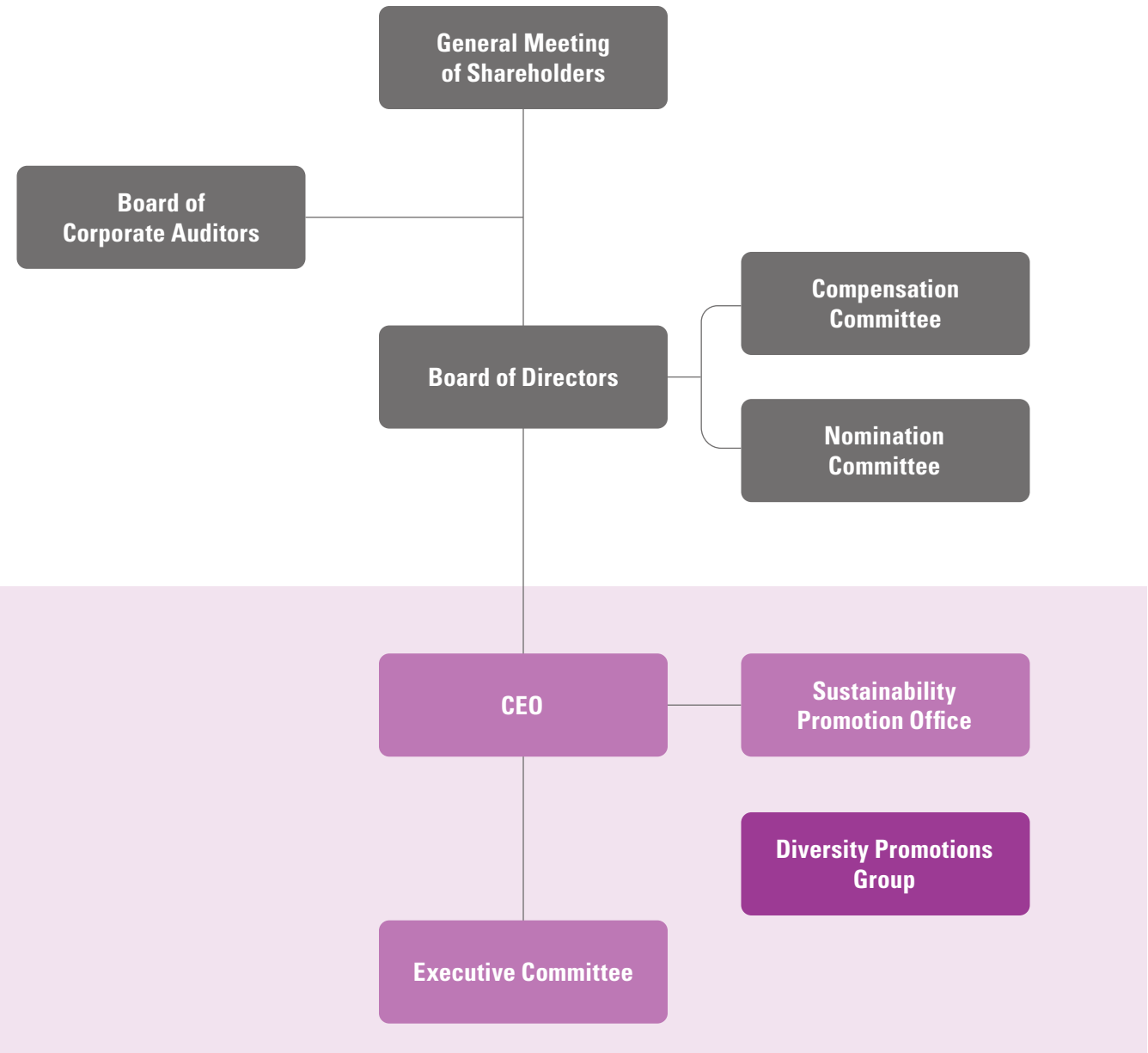


- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social**
- Governance
- Appendix

DIVERSITY, EQUITY AND INCLUSION CONTINUED

Employee Resource Group

At Renesas, we prioritize individuality and professional growth for employees globally. To support this, we have established the Diversity Promotion Group (DPG) to spearhead Diversity, Equity and Inclusion initiatives. DPG is led by six leaders with diverse backgrounds and has 120+ members from offices worldwide. The leaders drive discussions on global policies and DE&I initiatives in each region. We believe that every employee has a responsibility to embrace DE&I and we value dialogue and learning from each other to accelerate our DE&I initiatives.



Execution of Operations



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

DIVERSITY, EQUITY AND INCLUSION CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Gender Pay Gap Reporting

We are committed to bridging equality in the workplace. This includes making sure our people are compensated fairly for the work they are hired to do, regardless of their background. As the first step, we are analyzing our employee’s salary data and the difference in the average pay between men and women in the workplace.

Supporting Career Advancement for Women

Renesas is strengthening our efforts to promote the participation and advancement of female employees. We aim to increase the ratio of women in all organizations, especially in management positions. Despite low number of female students in engineering, we are actively recruiting and aim to have over 20% of new graduates in Japan be women. As of 2021, women make up around 25% of the workforce and 7.6% of managerial positions. We are committed to doing more to increase the total representation of women in the future.

Creating an LGBTQ+ Friendly Workplace

We strive to create an LGBTQ+ friendly workplace by promoting diversity and creating a safe work environment for everyone. Our Code of Conduct prohibits discrimination based on sexual orientation and identity. To demonstrate our commitment, Renesas has pledged to support Business for Marriage Equality (BME) in 2021, which is a campaign to increase marriage equality in Japan. We have also revised our HR policies in Japan to include partners of common-law marriage, regardless of their gender and sexual orientation. Renesas has plans to expand these initiatives in the future.

CONTINUOUS DE&I TRAINING

In recognition of Pride Month in June 2022, we addressed the gender inclusivity and LGBTQ+ visibility in the workplace by hosting a special seminar with a guest speaker—Yuli Kim, a workplace inclusion expert and the founder of Inclusion Sensei.



“Education is key to addressing LGBTQ+ inclusion at work. It is about psychological safety—that of your colleagues and yourself—and creating a sense of belonging, which I consider is a prerequisite for anyone to perform their best at work.”

—Yuli Kim, Founder of Inclusion Sensei

DIVERSITY, EQUITY AND INCLUSION CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

CONTINUOUS DE&I TRAINING

For our Diversity Awareness Month celebration in October 2022, we celebrated and educated one another on our differences to bring us together and make us stronger. We invited Bernadette Smith, Founder & CEO of Equality Institute, to discuss how to foster a truly inclusive workplace.



“What I believe is that a lot of us don’t connect with people who are different than us because we’re afraid of getting it wrong... [I use] a tool called the ARC method—Ask, Respect, Connect—to help you connect across differences.”

—Bernadette Smith, Founder & CEO, Equality Institute

OUR COMMITMENT

Renesas’ efforts in Diversity, Equity and Inclusion contribute to these Sustainable Development Goals targets:



5.1

End all forms of discrimination against all women and girls everywhere



5.5

Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life



5.C

Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels



10.2

By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Investment In Human Capital

At Renesas, we continue to develop our personnel system and talent growth strategies so that each of our diverse employees, as well as new recruits, are able to reach their full potential and grow professionally. In 2020, we developed new ideas to foster this in a guideline called “Renesas Culture” to be followed by all Renesas Group employees, helping them create value for society on a global scale in a rapidly changing business climate.

Some key actions we have taken include:

Talent Attraction

- Internship programs developed in each region
- Renesas University Program
- Experienced professional recruiting

Employee Engagement/Retention

- Performance and career development reviews for all permanent employees throughout the year (excludes contractors)
- Efforts to further instill the Renesas Culture, a set of shared values, in our employees
- Annual Employee Culture and Engagement Survey
- “One Global Renesas” pay-for-performance system
- Employee stock option program (adopted in Japan)

OUR COMMITMENT

Renesas’ efforts in Employee Growth and Engagement contribute to this Sustainable Development Goals target:



4.4

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

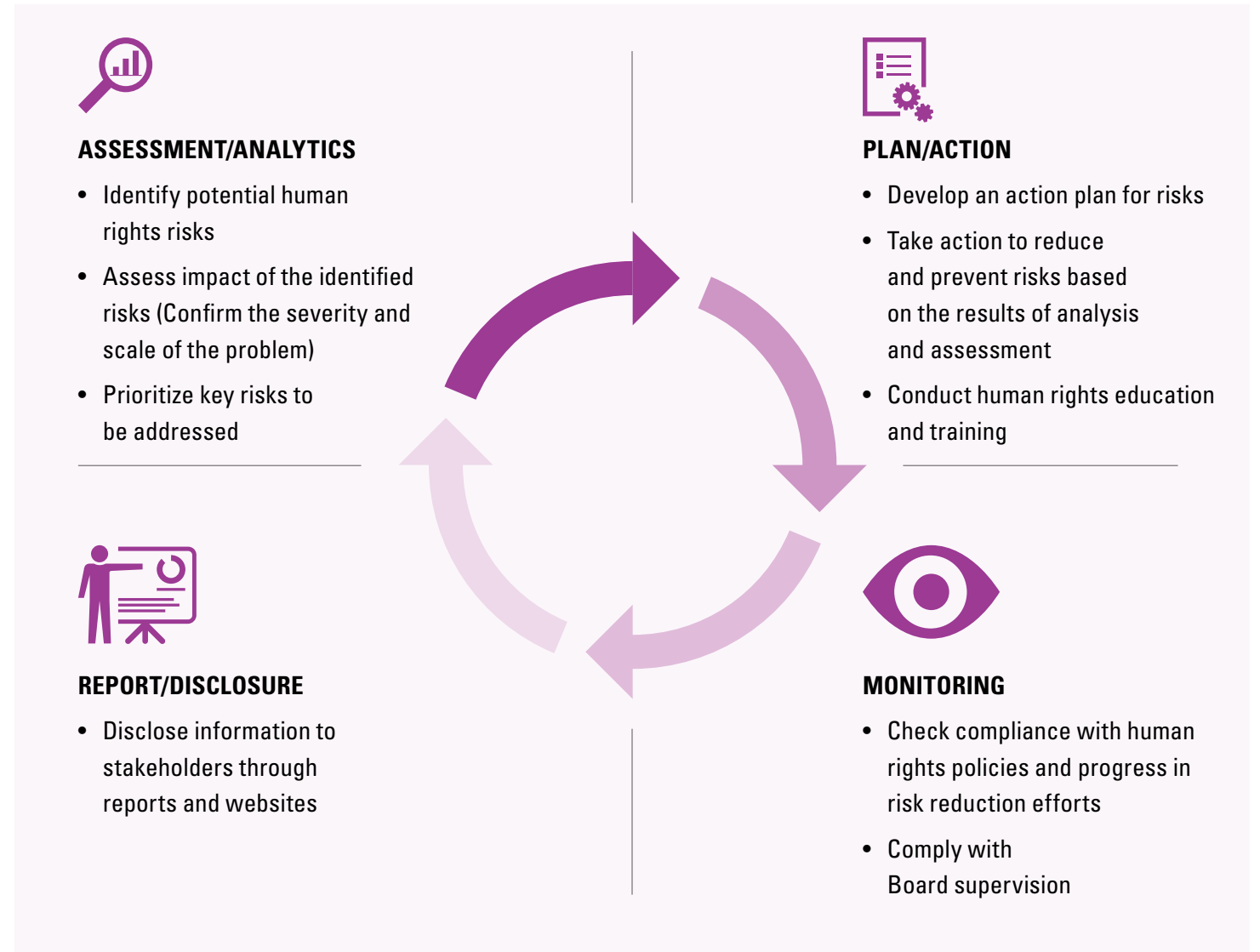
Commitment to Protecting Human Rights

We understand that the human rights regulated under the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work are fundamental rights, and we conduct our business respectfully and according to the UN Guiding Principles on Business and Human Rights. In addition, we support the Ten Principles of the UN Global Compact on human rights, labor, environment, and anti-corruption.

Recent developments include the following.

- Established the Renesas Electronics Group Human Rights Policy (Nov 2021)
- 97% of our global employees completed human rights e-learning (2021)
- Conducted the first human rights due diligence process and identified issues and related actions (Jan–Mar 2022)

The Renesas Human Rights Due Diligence Process



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

COMMITMENT TO PROTECTING HUMAN RIGHTS CONTINUED

Identifying Potential Human Rights Risks

We have identified human rights risks in our business activities and stakeholders who might be vulnerable to potential risks based on international trend surveys, NGO reports, and advice from human rights experts.

Potential human rights risks	Concerned matters (examples)	Potentially affected stakeholders			
		Customers	Employees	Suppliers' Employees	Community
Safe and healthy working environment	Industrial accidents/Poor working environment/Poor employee health		✓	✓	
Working hours	Long working hours/Forced overtime/Lack of legal leave		✓	✓	
Discrimination (including Diversity, Equity & Inclusion)	Discrimination by attribute/ Discrimination against the weak/ Harassment		✓	✓	
Freedom of association and collective bargaining	Prevention of labor union formation		✓	✓	
Right to privacy	Leakage of personal information of customers and employees	✓	✓	✓	
Conflict minerals	Funding to armed forces/ Deterioration of local security			✓	✓



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

IDENTIFYING POTENTIAL HUMAN RIGHTS RISKS CONTINUED

Potential human rights risks	Concerned matters (examples)	Potentially affected stakeholders			
		Customers	Employees	Suppliers' Employees	Community
Child labor	Deviates from Renesas Supplier Code of Conduct			✓	
Grievance mechanism malfunction	Malfunction of whistleblower system/Malfunction of whistleblower system and grievance system at suppliers		✓	✓	✓
Forced labor	Deviates from Renesas Supplier Code of Conduct			✓	



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

IDENTIFYING POTENTIAL HUMAN RIGHTS RISKS CONTINUED

Potential Risks on Human Rights

Renesas has identified the following six key human rights issues to be addressed within the Group and our supply chain. In order to meet stakeholder expectations on these critical issues, we will take additional steps to identify, prevent and mitigate risks in accordance with the United Nations Guiding Principles on Business and Human Rights.

- Safe and Healthy Working Environment
- Prohibition of Child and Forced Labor (Policy on the Rights of the Child)
- Working Hours
- Responsible Minerals Procurement
- Labor-Management Relations (Japan)
- Human Rights Education

Participation rate in compliance education, including human rights (2022)

	Managers and above	Non-managers	Total
Japan	95.9%	94.6%	94.8%
Global	90.1%	88.6%	88.9%

Ongoing and Future Initiatives

We are working closely with the Human Resources Division to ensure human rights are protected in our global operations. We will identify and prioritize risks by country, region, company, and process and formulate plans to prevent and mitigate risks. The Board of Directors will supervise and evaluate these efforts to implement improvements.

OUR COMMITMENT

Renesas' efforts in respecting Human Rights contribute to these Sustainable Development Goals targets:



8.7

Take immediate and effective measures to eradicate forced labor, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labor, including recruitment and use of child soldiers, and by 2025 end child labor in all its forms



10.3

Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard



16.B

Promote and enforce non-discriminatory laws and policies for sustainable development



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Employee Health & Safety

With the goal of achieving zero lost-time incidents globally, Renesas is committed to creating a safe and healthy workplace for our employees and contractors. Our recent efforts include the following:



Health & Safety Management System

Introduced a management system based on the ISO 45001 standard to identify workplace accident risks and implement countermeasures.



Monthly Health & Safety Education

Providing training to direct employees at each factory site, including monthly health and safety education.



Preparations for Emergencies

Established procedures for responding to emergencies, set up an emergency team, and periodically conduct evacuation drills.



Physical & Mental Health Initiatives

Introduced health guidance and consultation by industrial physicians and affiliated institutions, 24-hour telephone consultations and a full-scale telecommuting system during the pandemic.



Healthy Work-Life Balance

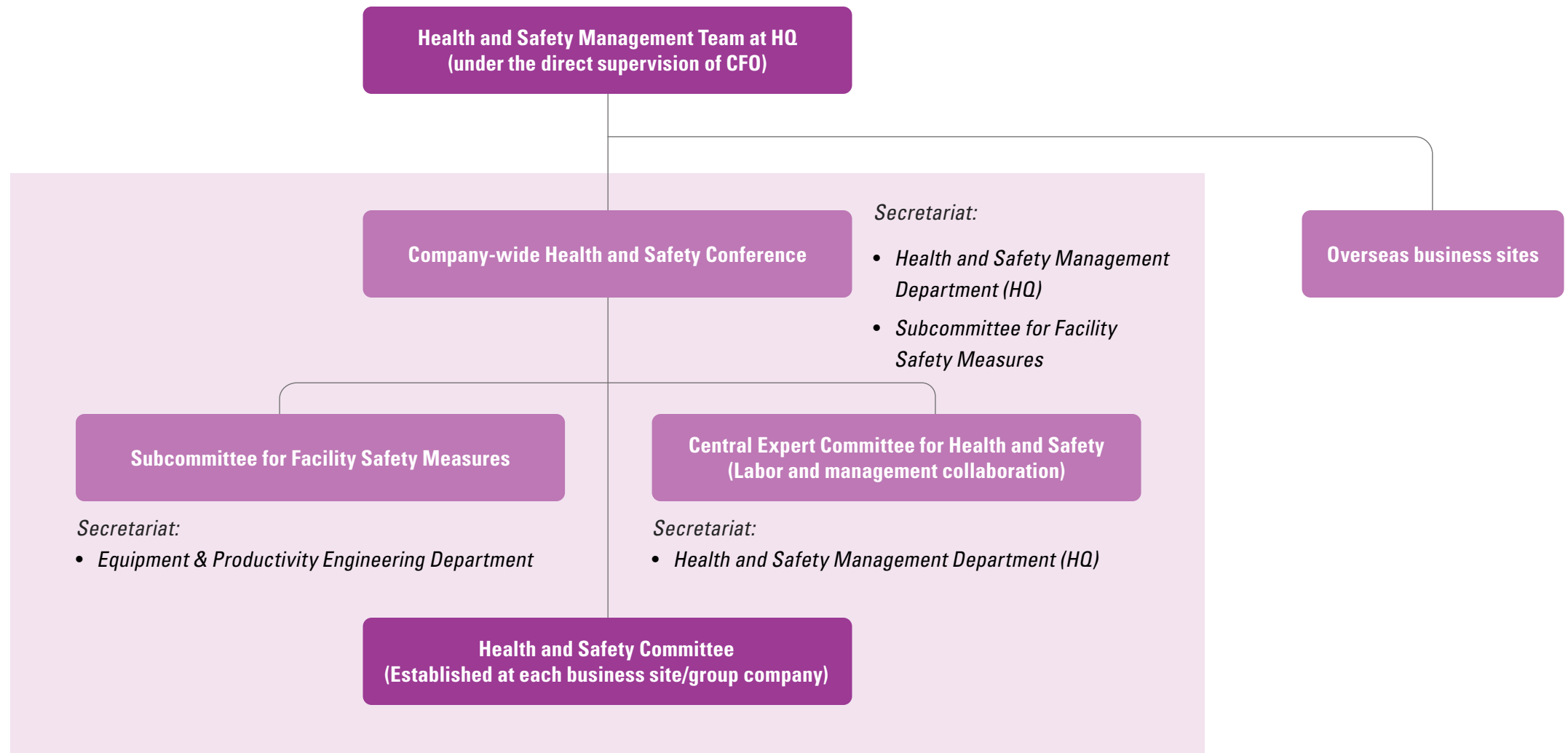
Properly managing the working hours to comply with the limits set by the laws and regulations of each country.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

EMPLOYEE HEALTH & SAFETY CONTINUED

A Structure Centered on Safety

At Renesas, the health and safety management team, under the direct supervision of the CFO, plays a central role in implementing our occupational health and safety initiatives. In addition, every business site and group company has set up a Health and Safety Committee staffed with a health and safety officer to keep employees safe and healthy.



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

EMPLOYEE HEALTH & SAFETY CONTINUED

Industrial Accidents

We track all industrial accidents that cause operational shutdowns on a global basis and strive to prevent those accidents through proactive information-sharing. The average number of disasters between 2017–2019 was 16, 11 in 2020, and 19 in 2021 and 18 in 2022.



OUR COMMITMENT

Renesas' efforts in Safe and Healthy Working Environment contribute to these Sustainable Development Goals targets:



8.8

Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Social Contributions Through Community Involvement

Renesas recognizes that the prosperity of our society, preservation of the environment and development of diverse and talented human resources have a tremendous impact on our business growth.

For example, we have established a structure with various types of vacation days for employees in Japan including “volunteer vacation days” to increase the amount of vacation days taken by employees so they can give back to the community through volunteer work. In addition, we have introduced three and four-day working weeks to allow employees to easily attend activities held in the community on a regular basis.

In California, United States, employees are encouraged to use a set number of hours within the working day to attend social service activities as part of the Volunteer Community Service.

Actual Figures from Social Contribution Initiatives Spending in 2022 (Million in JPY)

Donations	145.28
Financial Contributions	3.36
Donation of Goods	5.40
Employee Volunteering Participation (hours converted to monetary value)	5.38



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

SOCIAL CONTRIBUTIONS THROUGH COMMUNITY INVOLVEMENT CONTINUED

Three Areas of Focus for Social Contribution

Environmental Initiatives

EXPANSION OF SOLAR PANEL INSTALLATION (CHINA AND MALAYSIA)



In November 2022, Renesas installed solar panels at our manufacturing site in Suzhou, China, to maintain a continuous energy supply and reduce energy usage and utility expenses. We also installed and started operating a solar power system at our manufacturing site in Malaysia for the first time. We plan to expand the solar panel installation from 2023 to 2024 with a goal to further contribute to global climate change efforts and Malaysia’s renewable energy expansion

policy. Based on Renesas’ global environmental action guidelines, we will continue to promote activities that will allow our factories to be more sustainable and eco-friendly.

TREE PLANTING FOR RIVER RESTORATION (U.S.)

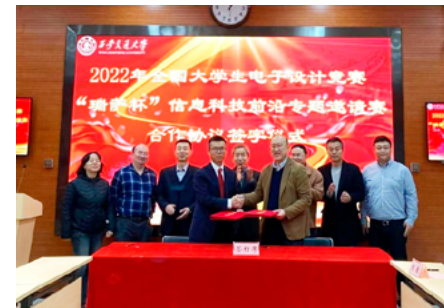


In October 2022, Renesas partnered with [Raritan Headwaters Association](#), a nonprofit conservation organization, to help plant 1,000 trees along the north branch of the Raritan River in New Jersey. This was a kick-off of a four-year restoration project to plant 10,000 trees along the Raritan River to help prevent future erosion and restore water resources. The Renesas team worked alongside the volunteers from Somerset County Parks Commission, Raritan

Headwaters, AmeriCorps, and the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration (NOAA).

Educational Activities

IT & ELECTRONIC DESIGN CONTESTS FOR UNIVERSITY STUDENTS (CHINA)



Renesas sponsored the National Undergraduate Electronic Design Contest and the Advanced Information Technology Invitational Contest (AITIC) for university students in China. Despite the COVID-19 lockdowns, 261 students from 52 universities across the country submitted excellent designs for AITIC based on the Renesas RZ/G2L microprocessor. In addition, the 3rd “Renesas Cup” (Information Technology Frontier Invitational Competition) was

held from April to August 2022, co-sponsored by Renesas and the Chinese Education Bureau. Approximately 100 teams of students from major universities studying information technology and electronics were invited to tackle an innovative and functional application system using cutting-edge technology. Renesas provided a microprocessor-based development platform that incorporates advanced DRP technology, as well as technical support such as online training.

SCHOLARSHIPS FOR FEMALE STUDENTS IN STEM (VIETNAM)



In November 2022, Renesas awarded 40 scholarships to female students from the top nine technical universities in southern and central Vietnam. This program is organized as part of our global effort to invest in the next generation of female engineers and technology professionals in the semiconductor industry. Renesas actively offers various learning opportunities as well as financial support locally.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

SOCIAL CONTRIBUTIONS THROUGH COMMUNITY INVOLVEMENT CONTINUED

Three Areas of Focus for Social Contribution

Community Support

RUNNING FOR A GOOD CAUSE (GERMANY)



In July 2022, approximately 30 Renesas employees participated in the charity event, “AKB run,” in Nabern, Germany. A regional non-profit, [Aktionskreis für Menschen mit und ohne Behinderung e.V. \(AKB\)](#), holds events for non-disabled people to spend time with people with disabilities and learn from them. Our involvement began with Dialog employees who are now part of

Renesas. The local team also donated \$500.

SAFE AND CLEAN DRINKING WATER PROJECT (INDIA)



In 2021 and 2022, Renesas collaborated with [Trinity Care Foundation](#) to provide safe drinking water to government school students by installing Reverse Osmosis (RO) water plants at the select schools in Bangalore North District, Karnataka. Out of 30 districts in Karnataka, the groundwater in 29 districts was considered unsafe for drinking.

The goal of this initiative is to improve the health of students and teachers, while minimizing absence and dropouts due to illness. Renesas provided five schools with a plant with a 4-layered overhead tank that can generate 100 liters of purified water in an hour and holds 1,000 liters of water.

OUR COMMITMENT

Renesas’ efforts in Social Contribution Initiatives contribute to these Sustainable Development Goals targets:



4.3

By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university



4.4

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship



5.B

Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women



6.6

By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

Engagement with Our Supply Chain and Partners

Our medium-term targets (through 2024) for a sustainable supply chain are to have every key supplier obtain an RBA SAQ score of “medium” or below and to procure minerals only from RMI-certified smelters. Our recent sustainable procurement initiatives include the following.

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix



Green Procurement

We preferentially procure environmentally conscious parts and materials from companies that practice proactive environmental conservation.



Self-Assessment Questionnaire (SAQ)

In 2022, a total of 922 suppliers responded to the Self-Assessment Questionnaire (SAQ), including 40 new suppliers. No significant risks were identified.



JEITA Study Group Membership

As a member of the Japan Electronics and Information Technology Industries Association (JEITA), Renesas joined the association’s Responsible Mineral Procurement Study Group in April 2022.



RBA Membership and the New CoC

Upon joining the Responsible Business Alliance (RBA) in 2021, we re-evaluated our Supply-Chain CSR Deployment Guidebook. The revised version is called the Renesas Supplier Code of Conduct (CoC), and 1,258 of our suppliers worldwide have agreed to follow it.



Responsible Mineral Procurement

To protect human rights and the environment on a supply chain level, we are working to realize responsible mineral procurement by not procuring conflict minerals related to risks in conflict-affected and high-risk areas as presented in Annex II of the OECD Guidance.



CDP Supply Chain Program

In 2022, Renesas joined CDP (Carbon Disclosure Project) Supply Chain Program and hosted an online “CDP Supply Chain Program Information Session” for approximately 100 suppliers. In March 2023, Renesas was recognized as a CDP 2022 Supplier Engagement Leader.

ENGAGEMENT WITH OUR SUPPLY CHAIN AND PARTNERS CONTINUED

Responsible Minerals Procurement Policy

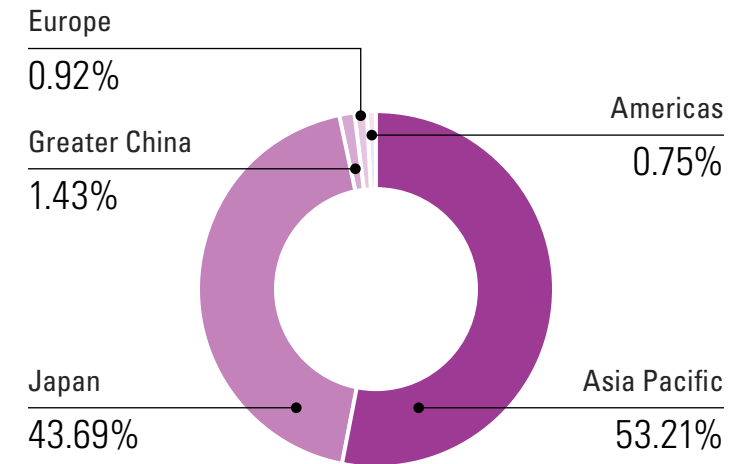
In order to avoid human rights violation and destruction of environment within the supply chain, Renesas is working to realize responsible mineral procurement with the aim of procuring materials that do not include conflict minerals, from OECD conflict-affected and high-risk areas, including DRC and adjoining countries, in relations to risks listed on the Annex II of OECD's guidelines.

In 2022, all 235 smelters of 3TG (tin, tantalum, tungsten and gold) we have—except one that is still under RMI audit—were added to the RMI's Conformant Smelter List as confirmed.

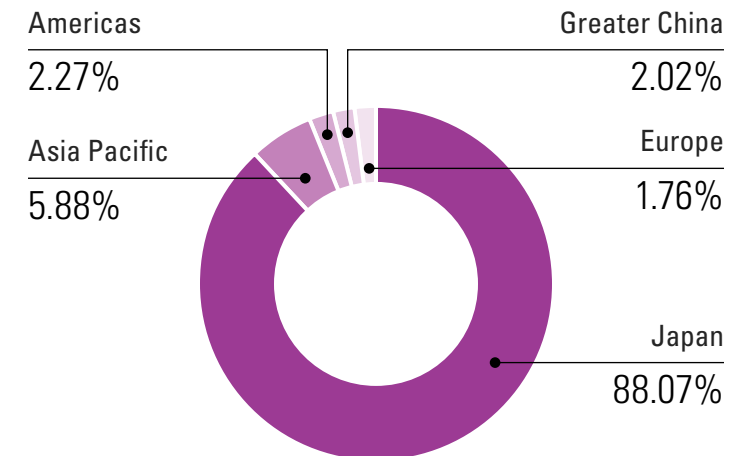
	2021	2022				
	Total	Total	Tin	Tantalum	Tungsten	Gold
Number of Identified Smelters	235	230	58	35	38	99
Number of Conformant Smelters	234	229	57	35	38	99

Supply Chain Data by Region

Ratio of Purchase Amount by Region (2022)



Ratio of Suppliers by Region (2022)



- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Governance

Q&A with Noboru Yamamoto	74
Our Governance Structure	75
Board Skills & Diversity	77
Compliance & Business Ethics	78
Risk Management	80
Information Security Policy	82
Tax Policy	83



Q&A with Noboru Yamamoto



Noboru Yamamoto

Independent Director,
ESG Sponsor

Q: What improvements or developments has Renesas accomplished in the area of Governance?

Since “Toshi” Shibata became the CEO in 2019, there has been significant progress in Governance. Notable improvements include the introduction of a lead independent director, more transparency in executive compensation and establishing policies to ensure board diversity. We have made it our utmost priority to implement enhancements in Governance across all three groups – Board of Directors, Nomination Committee, and Compensation Committee. To increase shareholder engagement, we have implemented various initiatives since 2022, such as hosting roundtables and virtual shareholder meetings and Q&A sessions during shareholder meetings.

As a member of the Nomination Committee, I believe increasing diversity is extremely important when selecting board members. To serve the global market and stay ahead of the competition, it is vital for us to have diverse

perspectives at the board level, and discuss and execute decisions on various topics. Currently, the board consists of a small, but unique team of members with diverse skill sets, experiences, and cultural backgrounds that allow us to have dynamic discussions from a broad range of perspectives.

Additionally in 2022, we started third-party evaluations by an independent organization to assess board effectiveness. Leveraging these evaluations, we have established a good routine to identify issues, ideate, and execute improvement measures.

Q2: As an ESG Sponsor, what areas of sustainability do you think Renesas should focus on?

Semiconductor manufacturing is a business that can highly impact the environment. To reduce GHG emissions and efficiently use water resources, we established ambitious targets and action plans to complete by 2023. The immediate challenge is to execute the plan and meet the targets every year. In 2023, we may face more challenges due to macroeconomic uncertainty, however, we will continue to monitor the situation and help us achieve the plan.

Where I personally expect to see additional progress is in human capital development. While the board values diversity, I hope the company can become an organization where diverse employees can thrive globally. To succeed

as one of the few truly global companies in Japan, I would like to see continued advancements of new initiatives such as global mobility, as driven by our CEO and CHRO, Julie Pope, and lay the foundation for further success this year.

Today’s semiconductor industry is facing new business risks such as cyber security, in addition to natural disasters as we encountered in the past. We cannot predict everything, but we must prepare ourselves for unexpected events and discuss with management how we can build a business continuity plan (BCP) to address these challenges. I’m confident that we will be able to deal with any unforeseen circumstances with agility and collaboration.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Our Governance Structure

To execute corporate governance and remain as a sustainable and responsible partner for our stakeholders, we are committed to maintaining a transparent corporate governance structure that enables fair, fast and resolute decision-making and robust accountability. Our ultimate objective is to achieve sustainable enhancement of corporate value over the mid- to long-term for the benefit of all the stakeholders.

We recognize the importance of operating business efficiently and ensuring the soundness and transparency of management in order to continuously increase corporate value. We are working to improve our management system and implement various measures to enhance corporate governance. In addition, we regularly hold meetings of the Board of Directors, the Board of Corporate Auditors, and the Executive Committee.

As required under the Companies Act in Japan, we have established an internal control system to ensure our corporate officers and employees comply with applicable laws and regulations and with our articles of incorporation.



OUR COMMITMENT

Renesas' efforts in Governance contribute to these Sustainable Development Goals targets:



16.5

Substantially reduce corruption and bribery in all their forms

16.7

Ensure responsive, inclusive, participatory and representative decision-making at all levels



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social

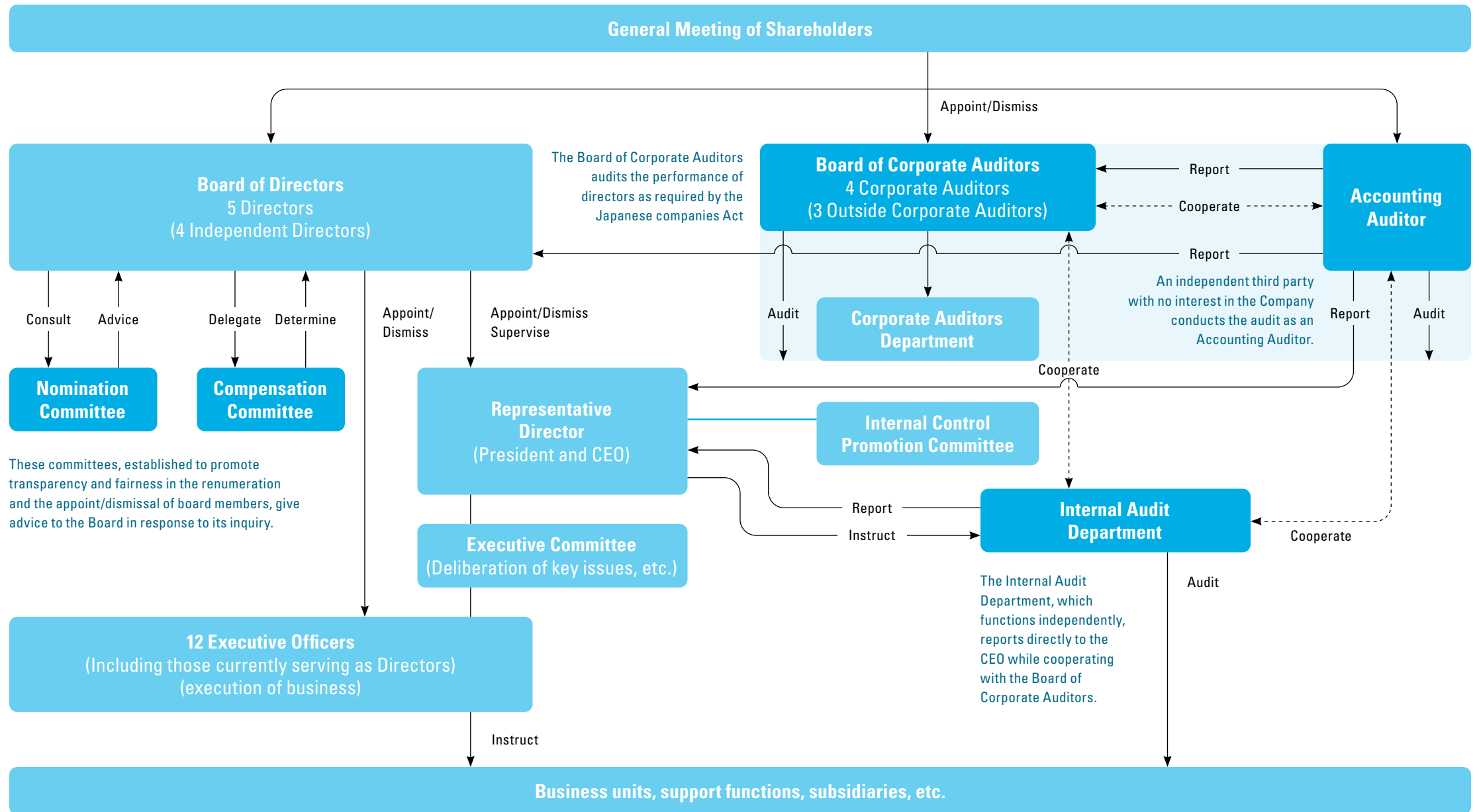


Governance



Appendix

OUR GOVERNANCE STRUCTURE CONTINUED



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social








Governance



Appendix

Board Skills & Diversity

Renesas' management board is organized in accordance with the Companies Act in Japan, and the members of the board are collectively responsible for the management, general and financial affairs and policy and strategy of our company. As of April 2022, the Board of Directors is comprised of five members, each appointed at our General Meeting of Shareholders. Out of five directors, we have four outside Directors to bring a different and diverse set of knowledge and experience in dealing with business challenges. Board responsibilities and expectations are identified in the Renesas Board Charter that is approved by the Board of Directors.

	 Hidetoshi Shibata	 Jiro Iwasaki	 Selena Loh LaCroix	 Noboru Yamamoto	 Takuya Hirano
Management/Strategy	✓	✓			✓
Leadership Experience	✓	✓		✓	✓
Risk Management		✓		✓	
Legal			✓		
Finance	✓			✓	
Sustainability			✓	✓	
International Business	✓	✓	✓	✓	✓
Semiconductor/Technology/DX	✓		✓		✓

Female Director(s)
20%

Non-Japanese
Directors
20%

Independent
Directors
80%

Compliance & Business Ethics

As one of the world’s leading semiconductor companies, Renesas’ strong commitment to the highest standards of ethics and integrity helps us earn the continued trust of our stakeholders, including our investors, customers, vendors, and communities. Our Code of Conduct and compliance policies are foundational to how we do business and how we put our values into practice every day.



Code of Conduct

Our Code of Conduct is reviewed and approved by the Board of Directors and expresses our commitment to ethical standards and responsibilities that guide our decision-making process in all of our business operations and corporate activities. We provide training to our employees on issues addressed in the Code of Conduct to help them understand their ethical and legal responsibilities to each other and the company.



Compliance Promotion

Renesas’ Internal Control Promotion Committee, chaired by the CEO, deliberates and makes decisions on compliance matters, and reports key issues to the Executive Committee and the Board of Directors. Any compliance violation is promptly investigated, remediated, and reported to the head of the division or office in charge of compliance and to the head of the Legal Division.



Ethics and Whistleblower Hotline

Renesas provides a hotline service for its employees, customers, suppliers, and the public to speak up about workplace concerns. Complaints may be made anonymously and can be registered online or via telephone. Renesas will not retaliate, and will not tolerate retaliation, against any individual for reporting a concern in good faith.

- Contents

- CEO Message

- About Renesas

- Sustainability Approach

- Environmental

- Social

- Governance

- Appendix

COMPLIANCE & BUSINESS ETHICS CONTINUED



Anti-Bribery and Anti-Corruption

Renesas complies with the anti-bribery and anti-corruption laws of the countries where it operates. Renesas provides and will further expand its anti-corruption and anti-bribery training for executives and employees globally.



Information Security

We provide information security training to all employees of Renesas and its subsidiaries. The most recent training, the Cyber Security Awareness Training, was held in February 2021.

OUR COMMITMENT

Renesas' efforts in Governance contribute to these Sustainable Development Goals targets:



16.5

Substantially reduce corruption and bribery in all their forms

16.7

Ensure responsive, inclusive, participatory and representative decision-making at all levels



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Risk Management

At Renesas, we are continually working on strengthening our risk management by recognizing the significance of early identification and analysis of group-wide risks and prompt resolution.

Risk Management System

We have established a group-wide risk management system based on the “Renesas Electronics Group Risk and Crisis Management Regulations.” We have a risk management system in place that we regularly maintain to address potential risks with each type of risk assigned to a department responsible for crisis management and day-to-day risk management. We also identify and group risks in advance that are represented in our Risk List, while at the same time formulating contingency measures to prevent those risks and response policies. Furthermore, in the event of an emergency, we establish an Emergency Task Force (ETF) led by our CEO, which brings information together, proposes countermeasures, and takes action to minimize losses.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

RISK MANAGEMENT CONTINUED

Corporate Risk Manager	Risk Management Officer	Risk Management Division	Risks
CEO	CEO	Corporate Communications Office	Public relations risks
		Quality Assurance Division	Product quality-related risks
		Legal Division	Legal violation risks Intellectual property-related risks
	CFO	Corporate Strategy & Finance Division	M&A-related risks Conflict risks
		Supply Chain Management Division	Recorded sales-related risks
		Procurement Division	Procurement-related risks
		Accounting & Control Division	Accounting and financial risks General affairs-related risks
	CHRO	Human Resources Division	Human resource-related risks Labor-related risk
	CTO	CTO Office	Technical information-related risks
	CSMO	Global Sales & Management Unit	Sales-related risks
	General Manager of Business Unit	Automotive Solution Business Unit IoT and Infrastructure Business Unit	R&D-related risks
	General Manager of Production and Technology Unit	Production and Technology Unit	Production-related risks Disaster and accident risks
		Environment Promotion Department	Environment-related risks
Senior Vice President in charge of Information Technology	Information Systems Division	IT security-related risks	



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Information Security Policy



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Cybersecurity and Data Privacy

As a global company, Renesas takes cybersecurity seriously and strives to identify vulnerabilities and respond immediately to any potential threats. To ensure business continuity, we constantly work to prevent cyberattacks through corporate governance policies and processes, including monitoring and reporting potential threats, employee training, and staying current with the latest cybersecurity standards and certifications. Moreover, all employees working at all our global sites, including sales, marketing, design, engineering and manufacturing locations, must comply with our guidelines for cybersecurity and data privacy.

Information Security Governance

We have a formal structure in place to monitor, evaluate, report and respond to any unauthorized attempts to access our networks, data or computers.

- Our team of trained IT security experts monitors potential threats and risks 24/7 and takes tactical and strategic measures to detect and respond to all security issues, under the supervision of the Vice President of IT.
- If an incident is identified, the IT team will immediately report to the Security Council (CEO, CFO, General Counsel, heads of HR and IT) and respond with emergency plans. Additionally, the IT team will coordinate with HR, Legal, Quality Assurance, Procurement and Accounting teams, as needed.
- We regularly perform internal audits and collaborate with external agencies to examine our tools, infrastructure, and policy to ensure we maintain optimal levels of security.
- The IT team reports quarterly to the Security Council, executive management and Board of Directors to keep them up to date on cybersecurity risks and initiatives.
- We also run regular incident response exercises to ensure our procedures are followed correctly in a timely manner.

Training

At Renesas, we provide all global employees and contractors mandatory training on cybersecurity and phishing at least once a year. As part of the training program, IT periodically sends mock phishing emails to test employees' understanding of cybersecurity protocols. Additional training, videos and resources are also available on demand through the IT Intranet page.

Certifications

Renesas strives to comply with global security standards to demonstrate our commitment and capabilities in protecting ourselves from security breaches. Some of the security standards we are working towards include:

- The CIS20 Framework as a basis to identify vulnerabilities with comprehensive external assessments and implement continuous improvement
- Target to achieve the SOC2 certification by 2024
- Working with customers to fully comply with TISAX by 2023 and IATF 16949 standards

Data Privacy

Renesas is committed to vigorously protecting the privacy and security of our colleagues, customers, partners and other stakeholders, and the steps we take to do so are described in our information security policy. We strictly comply with all laws, national guidelines and regulations related to data privacy including GDPR, APPI, CCPA and BDSG.

Tax Policy

In compliance with the Renesas Code of Conduct, Renesas and its Group companies ensure transparency and comply with tax laws and regulations of the countries in which we operate. Renesas' tax policy, which is approved by the Board of Directors, serves as the guiding principle for the long-term sustainability of our business.

Through our tax policy, we ensure the following:

Transparency

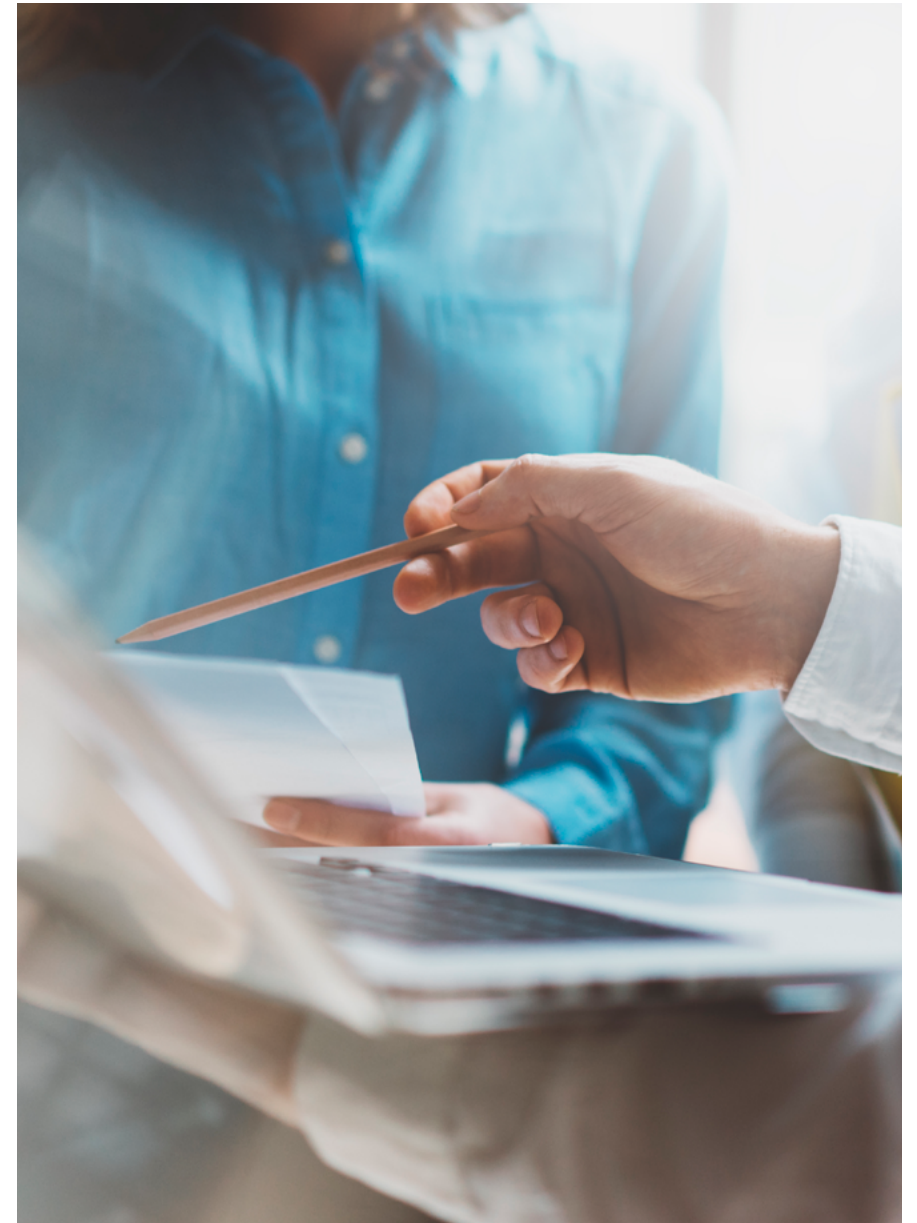
Our goal is to maintain transparency with our tax requirements by informing our internal team, shareholders, and other relevant individuals about our tax positions, risks and strategies. We also ensure that all decisions are made with sufficient analysis and evidence of.

Compliance with Tax Law

We aim to remain compliant with the law in each country we operate in. We will stay up to date with any changes in tax law and seek confirmation when policies are unclear. In addition, we provide internal training for employees in order to ensure our employees have a strong understanding of tax principles.

Tax Efficiency

In order to maximize shareholder return, we continue to make our best effort to be efficient with our tax liabilities by applying for tax benefits and tax incentives within the scope of business objectives and legislative intents. A valid business purpose and substance is of the utmost importance to us. As such, we do not enter into transactions solely for the purpose of reducing tax burdens and we do not conduct schemes for the purpose of tax avoidance or profit shifting by using offshore secrecy jurisdictions or so-called "tax havens."



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance

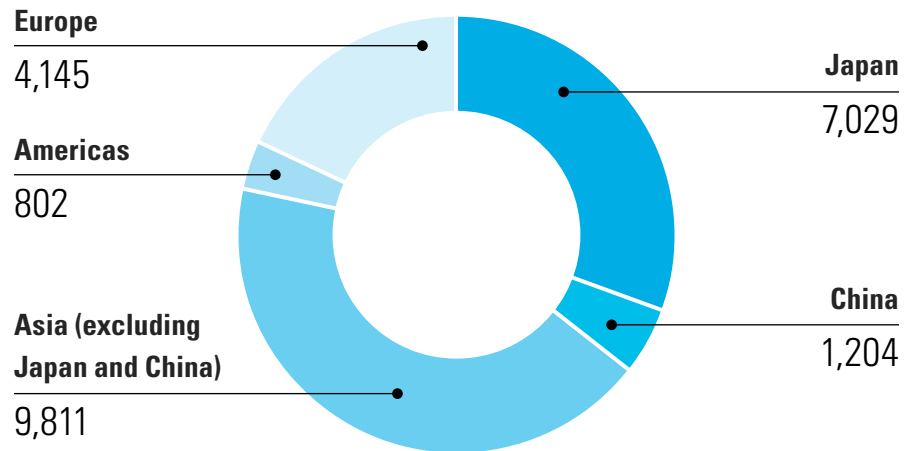


Appendix

TAX POLICY CONTINUED

Corporate Tax Paid by Region (2021)

Amount in millions of yen



Avoidance of Double Taxation

In order to avoid double taxation on identical economic profits, we actively seek applicable tax treaty relief and mutual agreement procedures among the countries where we conduct business.

Transfer Pricing

With regard to internal transactions within Renesas and its global subsidiaries, we aim to allocate the appropriate profit based on the arm's length principal in accordance with the OECD transfer pricing guidelines. In addition, we utilize Advance Pricing Agreement (APA) with the tax authorities in order to minimize tax exposures related to transfer pricing.

Uncertain Tax Positions

Our goal is to interpret and apply the law as intended, instead of taking as it is written. We stay current with both official and unofficial interpretations of tax laws. We are committed to doing our due diligence and ensuring we are well-supported and disclosing when uncertain.

Relationship with Tax Authorities

Our goal is to maintain a trustworthy relationship with tax authorities through honest and thorough communication. In case of disagreement, we will work in collaboration with the tax authority to seek a resolution.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix



Appendix

Task Force on Climate-Related Financial Disclosures (TCFD) Content Index	86
Sustainability Accounting Standards Board (SASB) Index.....	88
Global Reporting Initiative (GRI) Index.....	90
Environmental Data	97
Independent Verification Report.....	104



Task Force on Climate-Related Financial Disclosures (TCFD) Content Index

- 
Contents
- 
CEO Message
- 
About Renesas
- 
Sustainability Approach
- 
Environmental
- 
Social
- 
Governance
- 
Appendix

TCFD RECOMMENDED DISCLOSURE	REFERENCE LOCATION
Governance	
Describe the board’s oversight of climate-related risks and opportunities	Governance
Describe management’s role in assessing and managing climate-related risks and opportunities	Risk Management Response to the TCFD Proposal Governance
Strategy	
Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	Response to the TCFD Proposal Strategy Climate Change Initiatives
Describe the impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning	Innovation
Describe the resilience of the organization’s strategy, taking into consideration different climate-related scenarios, including a 2 or lower scenario	
Risk Management	
Describe the organization’s processes for identifying and assessing climate-related risks	Response to the TCFD Proposal Risk Management Risk Management
Describe the organization’s processes for managing climate-related risks	Environmental Initiatives Eco-Management: Environmental Management Activities
Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization’s overall risk management	

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES (TCFD) CONTENT INDEX CONTINUED

Metrics and Targets

<p>Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process</p>	<p>Response to the TCFD Proposal Metrics and Targets Environmental Protection Goals</p>
<p>Disclose Scopes 1 and 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and related risks</p>	<p>Environmental Data and Third-Party Verification Climate Change Initiatives</p>
<p>Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets</p>	<p>Response to the TCFD Proposal Metrics and Targets Environmental Protection Goals Environmental Initiatives</p>



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Sustainability Accounting Standards Board (SASB) Index

SEMICONDUCTOR STANDARD

Topic	Code	Accounting Metric	Response
Greenhouse Gas Emissions	TC-SC-110a.1	(1) Gross global Scope 1 emissions (2) Amount of total emissions from perfluorinated compounds	(1) 196,261 t-CO2 (2) 157,510 t-CO2
	TC-SC-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets and an analysis of performance against those targets	See “Our Commitment to Carbon Neutrality” section of our 2022 Sustainability report, p.25
Energy Management in Manufacturing	TC-SC-130a.1	(1) Total energy consumed (2) Percentage grid electricity (3) Percentage renewable	(1) 1,781,592 Mwh (2) 85% (3) 1%
Water Management	TC-SC-140a.1	(1) Total water withdrawn (2) Total water consumed, percentage of each region with High or Extremely High Baseline Water Stress	(1) 15,806 km3 (2) Total water consumed: 23,403 km3. 2 facilities in China located in the area with high water stress consumed about 2% of the total water consumption of Renesas. See more detail at https://www.renesas.com/us/en/about/company/sustainability/water
Waste Management	TC-SC-150a.1	Amount of hazardous waste from manufacturing, percentage recycled	(1) 20,737 t (2) 91.2% See “Waste Management” section of our 2022 Sustainability report, p.33



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

SUSTAINABILITY ACCOUNTING STANDARDS BOARD (SASB) INDEX CONTINUED

Topic	Code	Accounting Metric	Response
Employee Health & Safety	TC-SC-320a.1	Description of efforts to assess, monitor and reduce exposure of employees to human health hazards	See “Employee Health & Safety” section of our 2022 Sustainability report, p. 65
	TC-SC-320a.2	Total amount of monetary losses as a result of legal proceedings associated with employee health and safety violations	In 2022, Renesas did not incur monetary losses as a result of legal proceedings associated with employee health and safety violations
Recruiting & Managing a Global & Skilled Workforce	TC-SC-330a.1	Percentage of employees that are (1) foreign nationals and (2) located offshore	Headcounts by regions as of Dec 31, 2022: Japan 44%, Americas 11%, China 11%, EMEA 11%, Other Asia 23%. Percentage of foreign nationals is not disclosed.
Product Lifecycle Management	TC-SC-410a.1	Percentage of products by revenue that contain IEC 62474 declarable substances	Renesas does not disclose this information. Our approach to product hazardous substances is available in “Chemical Substance Use Management” section of our 2022 Sustainability report, p. 31
	TC-SC-410a.2	Processor energy efficiency at a system-level for (1) servers, (2) desktops and (3) laptops	Renesas does not track this information. This is not applicable to Renesas business
Materials Sourcing	TC-SC-440a.1	Description of the management of risks associated with the use of critical materials	See “Engagement with Our Supply Chain and Partners” section of our 2022 Sustainability report, p. 71
Anti-Competitive Behavior Litigations	TC-SC-520a.1	Total amount of monetary losses as a result of legal proceedings associated with anticompetitive behavior regulations	In 2022, Renesas did not incur monetary losses as a result of legal proceedings associated with anti-competitive behavior regulations.



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Global Reporting Initiative (GRI) Index

GRI STANDARD

Organizational Profile		
102-1	Name of reporting organization	Renesas Electronics Corporation
102-2	Activities, brands, products and services	About Renesas, page 5
102-3	HQ Location	About Renesas, page 7
102-4	Location of operations	About Renesas, page 7
102-5	Ownership and legal form	Renesas is traded and listed in Tokyo Stock Exchange (TSE:6723)
102-6	Markets served	About Renesas, page 5
102-7	Scale of the organization	About Renesas, page 6
102-8	Information on employees and other workers	About Renesas, page 6 Diversity, Equity and Inclusion, page 56
102-9	Supply chain	Engagement with Our Supply Chain and Partners, page 71
102-10	Significant changes to the organization and its supply chain	Engagement with Our Supply Chain and Partners, page 71
102-11	Precautionary Principle or approach to environmental challenges	Renesas practices a precautionary approach to support environmental challenges.
102-12	External initiatives	Index Inclusion & Participating Initiatives, page 19 Diversity, Equity and Inclusion, page 55 Engagement with Our Supply Chain and Partners, page 71
102-13	Membership of associations	Index Inclusion & Participating Initiatives, page 19 Engagement with Our Supply Chain and Partners, page 71



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

Strategy		
102-14	Statement from senior decision-maker	A Letter from Leadership, page 3
Ethics and Integrity		
102-16	Values, principles, standards and norms of behavior	Our Sustainability Approach, page 10 Renesas Culture, page 8
Governance		
102-18	Governance structure	Governance, Our governance structure, page 76
102-19	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and their employees	Sustainability approach, Sustainability Promotion structure, page 17
Stakeholder Engagement		
102-40	List of stakeholder groups	Our stakeholders are customers, suppliers, industry association, communities & NGOs, rating agencies and employees
102-41	Collective bargaining agreements	53% of employees covered by the collective bargaining agreement in 2022
102-43	Approach to stakeholder engagement	Sustainability approach, Materiality assessments & Results, page 10
102-44	Key topics and concerns raised	Sustainability approach, Materiality assessments & Results, page 10



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

Reporting Practice		
102-45	Entities included in the consolidated financial statements	About Renesas, page 7
102-46	Defining Report content and topic Boundaries	ESG Targets: Overview, page 13
102-47	List of material topics	ESG Targets: Overview, page 13
102-48	Restatements of information	Not applicable as this is Renesas' first report
102-49	Changes in reporting	Not applicable as this is Renesas' first report
102-50	Reporting period	Fiscal year 2022, which began on January 1, 2022 and ended on December 31, 2022.
102-51	Date of most recent report	Not applicable as this is Renesas' first report
102-52	Reporting cycle	Annual
102-53	Contact point	Sustainability Promotion Office
102-54	Claims of reporting in accordance with GRI Standards	About This Report, page 105
102-55	GRI Index	Page 90
102-56	External assurance	This Report was not externally assured.

Our Approach to ESG

Product Innovation

103-1,2,3	Management approach	Sustainability approach, Innovation for a Sustainable Future, page 16 Environmental, Eco-Product Initiatives, page 35
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- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

ESG Governance		
103-1,2,3	Management approach	Sustainability approach, Sustainability Promotion structure, page 17
405-1	Diversity of governance bodies and employees	Social, Diversity, Equity and Inclusion, page 55
Supply Chain Engagement		
103-1,2,3	Management approach	Social, Engagement with Our Supply Chain and Partners, page 71
308-1	New suppliers screened using environmental criteria	Renesas does not disclose this information.
308-2	Negative environmental impacts in the supply chain and actions taken	Social, Engagement with Our Supply Chain and Partners, page 71
414-1	New suppliers screened using social criteria	Renesas does not disclose this information.
414-2	Negative social impacts in the supply chain and actions taken	Social, Engagement with Our Supply Chain and Partners, page 71
Environment		
Climate Change		
103-1,2,3	Management approach	Environmental, Environmental Initiatives, page 23
302-1	Energy consumption within the organization	1,781,592 Mwh
305-1	Scope 1 GHG emissions	196,261 t-CO2
305-2	Scope 2 GHG emissions	719,066 t-CO2
305-3	Scope 3 GHG emissions	2,093,087 t-CO2
305-5	Reduction of emissions intensity	Environmental, Our Commitment to Carbon Neutrality, page 25



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

Water		
103-1,2,3	Management Approach	Environmental, Conserving Water, page 28
303-1	Interactions with water as a shared resource	Environmental, Conserving Water, page 28
303-2	Management of water discharge-related impacts	Environmental, Conserving Water, page 28
303-3	Water withdrawal	Environmental Data, page 97
303-4	Water discharge	Environmental Data, page 97
303-5	Water consumed	Environmental Data, page 97
Waste		
103-1,2,3	Management Approach	Environmental, Waste Management, page 33
306-1	Waste generation and significant waste-related impacts	Environmental, Waste Management, page 33 , Environmental Data, page 97
306-2	Management of significant waste-related impacts	Environmental, Waste Management, page 33
306-4	Waste diverted from disposal	Environmental Data, page 97



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

- 
Contents
- 
CEO Message
- 
About Renesas
- 
Sustainability Approach
- 
Environmental
- 
Social
- 
Governance
- 
Appendix

Social		
Inclusion and Diversity		
103-1,2,3	Management approach	Our Sustainability Approach, page 10 ESG Targets: Overview, page 13
405-1	Diversity of governance bodies and employees	Diversity, Equity and Inclusion, page 53
405-2	Ratio of basic salary and remuneration of women to men	Diversity, Equity and Inclusion, page 58 Also refer to our webpage: https://www.renesas.com/us/en/about/company/sustainability/human-resources-data
Employee Attraction, Development, Engagement & Retention		
103-1,2,3	Management approach	Social, Investment in Human Capital, page 60
401-1	New employee hires and employee turnover	https://www.renesas.com/us/en/about/company/sustainability/human-resources-data
404-1	Average hours of training per year per employee	15.1 hours of training per employees.
404-2	Programs for upgrading employee skills and transition assistance programs	Social, Investment in Human Capital, page 60
404-3	Percentage of employees receiving regular performance and career development reviews	Social, Investment in Human Capital, page 60
Employee Wellness, Health & Safety		
103-1,2,3	Management approach	Social, Employee Health & Safety, page 65
403-9	Work-related injuries	https://www.renesas.com/us/en/about/company/sustainability/health-and-safety

GLOBAL REPORTING INITIATIVE (GRI) INDEX CONTINUED

Human Rights		
103-1,2,3	Management approach	Social, Commitment to Protecting Human Rights, page 61
412-2	Employee training on human rights policies or procedures	Social, Commitment to Protecting Human Rights, page 61
Community Engagement		
103-1,2,3	Management approach	Social Contribution Through Community Involvement, page 68
201-1	Direct economic value generated and distributed	About Renesas, Reness At-A-Glance, page 6 Social, Social Contribution Through Community Involvement, page 68 https://www.renesas.com/us/en/about/company/sustainability/human-resources-data https://www.renesas.com/us/en/about/investor-relations/financial/statement
Governance		
Ethics & Compliance		
103-1,2,3	Management approach	Governance, Compliance & Business Ethics, page 78
Data Security & Privacy		
103-1,2,3	Management approach	Governance, Information Security Policy, page 82



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

Environmental Data

GHG EMISSIONS (2022 DATA)

(Source: [Environmental Data and Third-Party Verification](#))

2022	Classification	Range and Calculation Method	Emission amount (t-CO2)	Ratio
Scope 1	Direct emission of greenhouse gases	Greenhouse gases emitted by Renesas	196,261	6.52%
	Emission of PFC gases (Amount included in the total)		157,510	—
Scope 2	Indirect emission from the use of electricity, heat and steam	Indirect emission following the use of electricity and gases provided by other companies	719,066	23.90%
Scope 3	[C1] Purchased goods and services	Emission following procurement of materials and production outsourcing	1,842,705	61.25%
	[C2] Capital goods	Emission following the increase of production equipment	120,942	4.02%
	[C3] Fuel- and energy-related activities not included in Scope 1 and 2	Emissions from upstream processes of procured electricity and fuel	112,074	3.73%
	[C4] Upstream transportation and delivery	Emissions from production logistics within Japan	428	0.01%
	[C5] Waste generated by operation	Emissions from transportation and disposal of waste conducted by another party	6,843	0.23%
	[C6] Business travel	Emissions from employee business trips	6,823	0.23%
	[C7] Employee commuting	Emissions from employee commutes in Japan	3,272	0.11%
	[C8] Upstream leased assets	Not applicable (included in Category 1)	0	0.00%
	[C9] Downstream transportation and delivery	Not applicable	—	—



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

2022	Classification	Range and Calculation Method	Emission amount (t-CO2)	Ratio
Scope 3	[C10] Processing of sold products	Not applicable	—	—
	[C11] Use of products sold	Not applicable	—	—
	[C12] Disposal of sold products	Not applicable	—	—
	[C13] Downstream leased assets	Not applicable	0	0.00%
	[C14] Franchises	Not applicable	0	0.00%
	[C15] Investments	Not applicable	0	0.00%
Total			3,008,414	100%



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

ENERGY CONSUMPTION (2022 DATA)

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
Total Energy		MWh	1,493,746	287,846	1,781,592
	Electricity	MWh	1,240,642	269,270	1,509,912
	(Include) Renewable Energy	MWh	13,584	1,305	14,890
	Steam	MWh	68,561	16,887	85,449
	Gas	MWh	129,425	1,678	131,102
	Other Fuels	MWh	55,118	11	55,129
	Factory	MWh	1,492,987	287,846	1,780,833
	Electricity	MWh	1,239,883	269,270	1,509,153
	(Include) Renewable Energy	MWh	13,134	1,305	14,439
	Steam	MWh	68,561	16,887	85,448
	Gas	MWh	129,425	1,678	131,103
	Other fuels	MWh	55,118	11	55,129



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
	Office	MWh	760	—	760
	Electricity	MWh	760	—	760
	(Include) Renewable Energy	MWh	451	—	451
	Steam	MWh	0	—	0
	Gas	MWh	0	—	0
	Other fuels	MWh	0	—	0
Energy Consumption per Revenue	Consolidated Revenue	Oku yen	—	—	15,027
	per Revenue	MWh/ Oku yen	—	—	119



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

WATER (2022 DATA)

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
Total Amount Used (Water Intake + Recycled Water)		Km3	21,406	1,997	23,403
Total Water Withdrawal by Source		Km3	13,870	1,936	15,806
	Surface Water (Rivers, Lakes, Ponds)	Km3	8,865	477	9,342
	Ground Water (Wells, Boreholes)	Km3	4,656	0	4,656
	Municipal Water (Tap Water)	Km3	349	1,459	1,808
	Ocean Water	Km3	0	0	0
	Others (Rain Water, Quarries, External Effluents)	Km3	0	0	0
Recycled Water		Km3	7,536	61	7,597
Water Recycled and Reused		%	35	3	32



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
Total Water Discharge		Km3	11,513	1,176	12,689
<i>* There is no discharge made to the ground surface</i>	Public Water (Ocean)	Km3	10,952	374	11,326
	Sewerage (Off-Site Water Treatment)	Km3	561	462	1,022
	Others (Underground, Wells)	Km3	0	341	341
Water Use per Revenue	Consolidated Revenue	Oku yen	—	—	15,027
	per Revenue	Km3/ Oku yen	—	—	1.6



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

ENVIRONMENTAL DATA CONTINUED

CHEMICAL SUBSTANCES (2022 DATA)

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
Chemical Substances (subject to PRTR Law)	Transaction Volume	t	1,353	18	1,371
VOC	Emissions (Atmosphere)	t	367	—	367

WASTE (2022 DATA)

Category 1	Category 2	Unit	Japan	Outside Japan	Worldwide
Total Waste		t	16,787	3,950	20,737
	Total Hazardous Waste	t	2,085	1,561	3,646
	Recycling	t	1,830	687	2,517
	Landfill	t	3	779	782
	Others (Intermediate processes, etc.)	t	252	95	347
	Total Non Hazardous Waste	t	14,702	2,389	17,091
	Recycling	t	14,228	1,467	15,695
	Landfill	t	10	922	932
	Others (Intermediate processes, etc.)	t	464	0	464

(Source: [Environmental Data and Third-Party Verification](#))

- Contents
- CEO Message
- About Renesas
- Sustainability Approach
- Environmental
- Social
- Governance
- Appendix

Independent Verification Report



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

[View the Report](#)



Independent Verification Report

No.1811004553

To: **Renesas Electronics Corporation**

1. Objective and Scope

Japan Quality Assurance Organization (hereafter "JQA") was engaged by Renesas Electronics Corporation (hereafter "the Company") to provide an independent verification on "FY2022 Calculation reporting for Scope1, 2 emission", "FY2022 Calculation reporting for energy consumption", "FY2022 Calculation reporting for Scope3 emission" and "FY2022 Calculation reporting for water usage etc." (hereafter "the Reports"). The content of our verification was to express our conclusion, based on our verification procedures, on whether the statement of information regarding GHG emissions, energy consumption and water usage in the Reports was correctly measured and calculated, in accordance with the "Annual environmental data management manual(kansui(GM)-0030-08)", "Calculation manual for Scope1(except PFC), Scope2 emission and energy consumption(kansui(GM)-0036-07)", "Calculation manual for PFC emission (kansui(GM)-0037-03)", "Calculation manual for Scope3 emission (kansui(GM)-0035-09)" and "Calculation manual for water usage etc. (kansui(GM)-0038-03)" (hereafter "the Rules"). The purpose of the verification is to evaluate the Reports objectively and to enhance the credibility of the Reports.

*The fiscal year 2022 of the Company ended on December 31, 2022.

2. Procedures Performed

JQA conducted verification in accordance with "ISO 14064-3" for GHG emissions from Scope 1, 2& 3, and with "ISAE3000" for energy consumption and water usage, respectively. The scope of this verification assignment covers Scope 1& 2(energy-derived CO₂ emissions and PFC* emissions), Scope 3(Category 1, 2, 3, 4, 5, 6 and 7), energy consumption and water usage. The verification was conducted to a limited level of assurance and quantitative materiality was set at 5 percent each of the total emissions, total energy consumption and total amount of water usage in the Reports. The organizational boundaries of this verification for Scope 1& 2, energy consumption and water usage include the head office of Renesas Electronics Corporation and its group companies in total twenty sites: twelve domestic sites and eight overseas sites. The organizational boundaries of the verification for Scope3 are as indicated in Appendix I.

Our verification procedures included:

- Performing validation of integrated functions to check the Rules prior to the on-site assessment except for Scope 3.
- Holding on-site verification except for Scope 3, at the Company's three domestic sites: Takasaki site, Kawashiri Factory and Oita Factory. The number and location of sampling sites for on-site assessment were selected by the Company.
- On-site assessment to check the reports scope and boundaries; monitoring points of energy consumption and water usage; monitoring and calculation system; and activity data.
- For Scope 3, performing validation of integrated functions to check the Rules, and checking calculation scenario and allocation method; monitoring and calculation system; and emissions data against evidence.

*PFC here includes HFC (CHF₃), PFC (CF₄, C₂F₆, C₃F₈, C₄F₈), SF₆ and NF₃.

3. Conclusion

Based on the procedures described above, nothing has come to our attention that has caused us to believe that the statement of the information regarding the Company's FY2022 GHG emissions, energy consumption and water usage in the Reports are not materially correct, or has not been prepared in accordance with the Rules.

4. Considerations

The Company was responsible for preparing the Reports, and JQA's responsibility was to conduct verification of GHG emissions, energy consumption and water usage in the Reports only. There is no conflict of interest between the Company and JQA.

Sumio Asada, Board Director
For and on behalf of Japan Quality Assurance Organization
1-25, Kandasudacho, Chiyoda-ku, Tokyo, Japan
April 10, 2023

*Please refer to the appendix I in the next page.



No.1811004553

Appendix I

<Boundaries of Scope 3 GHG emissions by category>

Scope 3 category	Boundary	
Category 1 Purchased goods & services	All Renesas Group facilities	
Category 2 Capital goods	All Renesas Group facilities	
Category 3 Fuel- and energy related activities (not included in scope 1 or scope 2)	Same boundary as Scope 1& 2	
Category 4 Upstream transportation & distribution	Procurement materials and logistics	Same boundary as Scope 1& 2
	Transportation and distribution between a company's own facilities	REL/ Yonezawa Factory, Oita Factory, Nishiki Factory, RSMC/ Naka Factory, Takasaki Factory, Saijo Factory, Yamaguchi Factory, Kawashiri Factory
Category 5 Waste generated in operations	Same boundary as Scope 1& 2	
Category 6 Business travel	REL, RSMC, REA, REE, RESG, REML, REIN, REHK, RECH, RESH, RETW, REKR, RSM, RST, RSK, RSC, RSB, RSKL	
Category 7 Employee commuting	All domestic Renesas Group facilities	

<List of abbreviations>

REL: Renesas Electronics Corporation
REA: Renesas Electronics America Inc.
REE: Renesas Electronics Europe GmbH
RESG: Renesas Electronics Singapore Pte. Ltd.
REML: Renesas Electronics Malaysia Sdn. Bhd.
REIN: Renesas Electronics India Pvt. Ltd.
REHK: Renesas Electronics Hong Kong Limited
RECH: Renesas Electronics (China) Co., Ltd.
RESH: Renesas Electronics (Shanghai) Co., Ltd.
RETW: Renesas Electronics Taiwan Co., Ltd.
REKR: Renesas Electronics Korea Co., Ltd.
RSMC: Renesas Semiconductor Manufacturing Co., Ltd.
RSM: Renesas Semiconductor (Malaysia) Sdn. Bhd.
RST: Renesas Semiconductor Technology (M) Sdn. Bhd.
RSK: Renesas Semiconductor (Kedah) Sdn. Bhd.
RSC: Renesas Semiconductor (Suzhou) Co., Ltd.
RSB: Renesas Semiconductor (Beijing) Co., Ltd.
RSKL: Renesas Semiconductor KL Sdn. Bhd.

*Please refer to the previous page.

(Source: [Environmental Data and Third-Party Verification](#))

About This Report

Our Approach

This annual sustainability report represents environmental, social and governance (ESG) strategies, initiatives, and results of Renesas Electronics Corporation (Renesas) during the fiscal year 2022, from January 1, 2022 until December 31, 2022. Data and activities noted in this report cover all of Renesas and its subsidiaries, as well as those of Dialog Semiconductor Ltd. (acquired in 2021). This report also includes some data from previous fiscal years and relevant updates, including the new board structure approved during the general shareholder meeting in March 2023.

This report has been prepared in accordance with Global Reporting Initiative (GRI) Standards: Core option, the Sustainability Accounting Standards Board (SASB) Semiconductor Industry Standard, and the Task Force on Climate-related Financial Disclosures (TCFD) recommendations. Please refer to the Appendix section (see pages [85–104](#)) for disclosure details.

This report also demonstrates our commitment to the UN Global Compact, to which we have been a signatory since 2021. Renesas has supported and taken actions against 13 out of 17 Sustainable Development Goals (SDGs).

Accuracy and Verification

We hereby confirm Renesas' responsibility for report preparation and the accuracy of information in the report. Our environment data for the fiscal year 2022 ending on December 31, 2022 has been reviewed and verified by a third party (see page [104](#)). The remaining data and information in this report have been reviewed by Renesas leadership team and internal subject matter experts.

Contact Us

Please contact Renesas' [Sustainability Promotion Office](#) with any questions or feedback you may have on this report or our ESG initiatives. We look forward to hearing from you.

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- 
Contents
- 
CEO Message
- 
About Renesas
- 
Sustainability Approach
- 
Environmental
- 
Social
- 
Governance
- 
Appendix

Forward-Looking Statements



Contents



CEO Message



About Renesas



Sustainability Approach



Environmental



Social



Governance



Appendix

The statements in this report with respect to the plans, strategies and forecasts of Renesas Electronics and its consolidated subsidiaries (collectively “we”) are forward-looking statements involving risks and uncertainties. Such forward looking statements do not represent any guarantee by management of future performance. In many cases, but not all, we use such words as “aim,” “anticipate,” “believe,” “continue,” “endeavor,” “estimate,” “expect,” “initiative,” “intend,” “may,” “plan,” “potential,” “probability,” “project,” “risk,” “seek,” “should,” “strive,” “target,” “will” and similar expressions to identify forward looking statements. You can also identify forward-looking statements by discussions of strategy, plans or intentions. These statements discuss future expectations, identify strategies, contain projections of our results of operations or financial condition, or state other forward-looking information based on our current expectations, assumptions, estimates and projections about our business and industry, our future business strategies and the environment in which we will operate in the future.

Known and unknown risks, uncertainties and other factors could cause our actual results, performance or achievements to differ materially from those contained or implied in any forward-looking statement, including, but not limited to: general economic conditions in our markets, which are primarily Japan, North America, Asia and Europe; demand for, and competitive pricing pressure on, our products and services in the marketplace; our ability to continue to win acceptance of its products and services in these highly competitive markets; and movements in currency exchange rates, particularly the rate between the yen and the U.S. dollar. Among other factors, a worsening of the world economy, a worsening of financial conditions in the world markets, and a deterioration in the domestic and overseas stock markets, would cause actual results to differ from the projected results forecast.

This report is based on the economic, regulatory, market and other conditions as in effect on the date hereof. It should be understood that subsequent developments may affect the information contained in this presentation, which neither we nor our advisors or representatives are under an obligation to update, revise or affirm.



RENEASAS

[renesas.com](https://www.renesas.com)

