

JSR Group's Sustainability Report 2021

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Materials Innovation

We create value through materials to enrich society, people and the environment.

NEWS

- 10/29/2021 JSR Group Issues its "2021 Sustainability Report"
- 09/10/2021 JSR to establish the JSR Group's Human Rights Policy



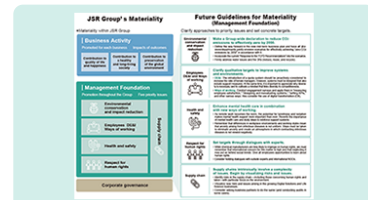
A Message from our Chief Sustainability Officer

We will advance global-scale "Group management" with respect for diversity to ensure that JSR Group can address the issue of "sustainability" with a shared perspective.



JSR Group's Sustainability

- Corporate Mission and Sustainability Philosophy
- JSR Group's Contribution to Attainment of the SDGs
- Response to the TCFD Recommendations



Materiality and Sustainability Management

- JSR Group's Materiality (Priority Issues)
- Sustainability Management and Advancement Structure

ESG Activities



Environment

- Environmental Impact Reduction (Input and Output)
- Climate Change Mitigation
- Water Resources
- Waste Reduction
- Biodiversity Conservation
- Other Approaches
- Environmental Accounting
- Chemical Management



Society

- Security and Accident Prevention
- Occupational Health and Safety
- Logistics
- Product Safety
- Quality Management
- Human Rights
- Labor Environment
- Work-style Innovation
- Diversity, Equity and Inclusion
- Supply Chain Management
- Social Contributions



Governance

- Corporate Governance
- Compliance
- Risk Management



Responsible Care

- Responsible Care Index
- Responsible Care



Communication with Stakeholders

- Customers / Business Partners
- Employees
- Local / Society
- Shareholders and Investors

→ Editorial Policy

→ ESG Data [PDF](#)

→ Policy, Guideline, Philosophy [PDF](#)

→ GRI Guideline Comparison Table [PDF](#)

→ Integrated Report (JSR report)

Evaluation by Outside Organization and Independent Review

- Evaluation by Outside Organization
- Independent Review

Report Archive

- JSR Group Sustainability Reports
- CSR Report (Group Companies)
- RC Site Report
- Corporate Brochure

Corporate Information

- JSR Group Profile
- JSR Group Products
- Financial Data on the IR Site

→ Post comments and opinions concerning sustainability here.



Looking back at a year as CSO

The fiscal year 2020, my first year as CSO, started under the highly unusual circumstances of the COVID-19 pandemic, chiefly the government's declaration of a state of emergency on April 7. In Japan, people were urged to refrain from going out and to work remotely. And internationally, the flow of people and goods shrank rapidly. We responded by taking various actions to cope with the situation. We implemented urgent BCP measures to ensure that our business continued amid the pandemic. We endeavored to reform work styles and explored ways of doing non-face-to-face business with an eye to "life with the coronavirus." And we sought to make a social contribution by supporting research on masks, test agents, and the like.

Looking at business strategy, we designated the Digital Solutions Business and Life Science Business as new core businesses under a new mid-term management policy that commenced in FY2021. Meanwhile, we engaged in discussions toward making our company's first major business transformation since its founding—a transformation that includes making unrestricted reforms to the Elastomers Business.*1

As for sustainability, we conducted a scenario analysis in early FY2020 for each of our businesses in line with the TCFD Recommendations. The analysis was aimed at bringing about real measures to combat climate change, which was a priority issue for us even before I was appointed CSO. The results were reported to, and discussed by, the Sustainability Promotion Committee and the Board of Directors, and we officially announced that JSR supports the TCFD Recommendations in October.

Looking back, FY2020 brought great changes in our domestic and international business environments. And I believe it marked a turning point for our company.

*1 The Elastomers Business is scheduled to be transferred to ENEOS on April 1, 2022 (as of September 10, 2021), subject to approval at JSR's General Meeting of Shareholders as well as by the concerned authorities.

Incorporating materiality into the actions of all business departments

Each time we update our mid-term business plan at JSR, we also review our materiality. We do this based on the idea that materiality is not a matter of sticking to what we think is "ideal"; rather, it is something that must be changed dynamically to meet the needs of society at the time.

However, "materiality that is based on the demands of society" is not particularly original when expressed in words. This is because, quite naturally, *all* companies want to engage in activities that meet society's demands. But even if we ultimately use the same words as everyone else to describe our materiality, I believe it is important that we be able to fully explain the process by which we reached this description—in other words, why JSR chose particular points as its materiality and how it prioritized them. If this process is convincing, the originality of JSR's materiality will become apparent even if the words are

the same.

The process of reviewing our materiality within the JSR Sustainability Challenge, which was conducted in conjunction with steps to update the mid-term business plan, also taught us quite a bit about respect for human rights and the supply chain. Through the review process, we decided to give particular focus to two areas—namely, “reducing greenhouse gas (GHG) emissions” and “improving employee engagement.” I feel that these aims have become “keywords” in our employees’ consciousness as a result. However, our materiality has not yet been fully incorporated into all business department activities, and this remains a challenge that we must address. Materiality does not end with selection. I believe my role as CSO is to find a way to apply it to management and link it to the actions of each business department.

Our new mid-term management policy, which extends to FY2024, states that we will “continue to proactively take on the challenge of achieving ‘effectively net zero’ GHG emissions in 2050” and “build a resilient corporate structure capable of responding to any situation by applying scenario analyses based on the TCFD^{*2} Recommendations” as part of our efforts to address ESG issues. I anticipate that clearly presenting to employees the fact that the “sustainability” perspective has a major impact on business activities in this way will bring a change in their mindset.

*2 TCFD: The Task Force on Climate-related Financial Disclosures, established by the Financial Stability Board. In June 2017, the TCFD presented recommendations calling for the disclosure of climate change impacts in financial reports issued by financial institutions, corporations, governments, and others. More than 2,000 organizations around the world have endorsed the recommendations (as of May 2021; figure published by the TCFD).



Strengthening employee engagement to advance “Group management”

Designating Digital Solutions and Life Sciences as our new core businesses will have a profound impact on our sustainability activities overall. Particularly in the case of the Life Science Business, the majority of our business operations, including decision-making, are handled in North America. This means that the importance of collaboration between Japan and North America has increased dramatically. Previously, “sustainability” tended to be focused on the activities of JSR itself. But from now on, employee engagement implemented from a global perspective, and as part of Group management, will be essential. Specifically, overseas affiliates that have been brought into JSR Group through mergers and acquisitions have their own unique corporate cultures. While respecting this diversity, we are building a system for sharing information and deepening communication (using the North American headquarters as a hub) so that we can standardize engagement indicators for shared application in human resources management and work toward sustainability as one JSR Group. In 2021, we conducted our first global employee engagement survey and are analyzing the results as the first step of this endeavor.

One of the results of this effort to strengthen collaboration with North America is an initiative called “Diversity, Equity & Inclusion,” which adds “equity” to the previously existing concept of “diversity and inclusion.” When it comes to leveraging people’s diversity to achieve growth for JSR Group as a whole, it is not enough to simply acknowledge diversity. Unless opportunities are provided fairly, any enterprise toward this end becomes pointless. My attention was drawn to this when the sustainability officer of a Group company in North America raised the word “equity.” I felt the importance of diversity deep down. Therefore, beginning in FY2021, we are standardizing all notations regarding the diversity of people, both inside and outside the company, as “Diversity, Equity & Inclusion (DE&I).” We have also assigned a full-time DE&I manager.

As we advance employee engagement globally as part of Group management, one thing that I want to bear in mind is the fact we are neither monitors nor supervisors. Our role will change as we move forward with global management. I think the challenge will be to find an approach that does not make us seem like monitors or supervisors within the Group—in other words, to communicate a common direction for the Group in the midst of diverse values.

Becoming a sustainable and resilient company

The basis for this “common direction for the Group” is none other than our “Corporate Mission.” At a management policy briefing in FY2021, CEO Johnson made a presentation on “Creating Value through the Five Foundations.” He focused on sustainability as a means of building a resilient management foundation. If we are to fulfill our Corporate Mission—Materials Innovation: We create value through materials to enrich society, people and the environment—we must be “resilient,” and we must be “sustainable.” Especially now, with the entire world grappling with COVID-19, the concepts of resilience and sustainability are receiving renewed scrutiny. I understand that this is precisely why we have reiterated them in our new Management Policies.

If we think about how to apply sustainability to management, we realize that it will be necessary not only to reexamine our materiality but also to assess and quantify the impacts of our activities and to make those impacts visible. I mentioned earlier that “we are neither monitors nor supervisors. Rather than simply using what assessments reveal in warnings or instructions, the point is to use our own awareness as the basis for connecting “sustainability” to our department’s work and actions. That is what I must do. What is important is to communicate the approaches that will help people in the field understand what sustainability is. Having “resilience” means having the ability to foresee changes in society, and possessing the nimbleness that permits quick action when risks arise. Even if we cannot avoid damage when a predicted risk materializes, it is important to have a system that can quickly switch to recovery mode afterward. Regular communication is essential for such a system. A company whose established practice is to routinely energize communication throughout its organization, and which thereby possesses the ability to demonstrate necessary communication capabilities in any emergency—that, to me, is a “sustainable” company.

Mika Nakayama

Director and Senior Officer, Chief Sustainability Officer (CSO)

General Manager of Sustainability Promotion Dept.

JSR Corporation





▼ 1. Corporate Mission and Sustainability Philosophy
▼ 2. Corporate Mission
▼ 3. Management Policies - JSR's Fundamental Pillars of Management
▼ 4. Management Policies - Responsibility to Our Stakeholders
▼ 5. 4C Course of Action

We established our “Essential Elements” as a set of common values that allows each JSR Group employee to act with responsibility and confidence. Consisting of the Corporate Mission, the Management Policies, and the Course of Action, the Essential Elements’ purpose is to create a corporate culture in which sustainable growth is achieved regardless of changes in personnel or organizational form. We are constantly working to ensure that Essential Elements permeate to all corners of JSR Group.

1. Corporate Mission and Sustainability Philosophy

We believe that to be a sustainable company, we must continue providing value to all stakeholders while responding to environmental changes. We define sustainability as “contributing to society by creating value through corporate activity.” This way of thinking vis-à-vis sustainability is connected to JSR Group’s Corporate Mission and in line with our management policies over the years.

Under our Corporate Mission of “Materials Innovation - We create value through materials to enrich society, people and the environment,” we aim to contribute to the development of a sustainable global environment and society by creating value through corporate activity. And we will advance initiatives that benefit all stakeholders—customers and business partners, employees, society, the environment, and shareholders.

JSR Group considers addressing climate change to be one of its highest top priorities in realizing a sustainable global environment. This is why we express our support for the TCFD. We have already begun implementing measures that are consistent with the TCFD’s recommendations. And we will continue enhancing specific measures in line with the recommendations’ requirements and disclosing information in a timely and appropriate manner.

> [Response to the TCFD Recommendations](#)

The scope of JSR Group’s business activities is in the process of shifting from a Japan-centric focus to a truly global focus. In order to carry out global business activities, we need to have a deeper understanding of worldwide issues and the problems faced by regions throughout the world.

On the other hand, these issues and problems can be turned into opportunities for new businesses. By actively seeking to identify these business opportunities, we are working to expand the scope of our business.

Participation in the United Nations Global Compact

JSR Group signed the United Nations Global Compact in April 2009. As a signatory, we will more proactively fulfill our corporate social responsibilities, recognizing that global businesses must make a greater commitment to the ideals expressed in The Ten Principles of the United Nations Global Compact; namely, human rights, labor, the environment and anti-corruption.



www.unglobalcompact.org



The Ten Principles of the United Nations Global Compact

- 1: Businesses should support and respect the protection of internationally proclaimed human rights; and
- 2: make sure that they are not complicit in human rights abuses.
- 3: Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
- 4: the elimination of all forms of forced and compulsory labour;
- 5: the effective abolition of child labour; and
- 6: the elimination of discrimination in respect of employment and occupation.
- 7: Businesses should support a precautionary approach to environmental challenges;
- 8: undertake initiatives to promote greater environmental responsibility; and
- 9: encourage the development and diffusion of environmentally friendly technologies.
- 10: Businesses should work against corruption in all its forms, including extortion and bribery.

The Sustainable Development Goals (SDGs)

“Transforming our World: the 2030 Agenda for Sustainable Development” was adopted at the UN Sustainable Development Summit in September 2015. The SDGs are comprised of 17 goals and 169 targets that all United Nations member states will strive to achieve by 2030 for the purpose of bringing sustainability to the global environment and people’s lives. In addition to conventional development goals, such as eradicating extreme poverty and hunger, the SDGs also cover challenges faced by developed countries, among them the promotion of gender equality, creation of a strong employment environment, reexamination of production and consumption, conservation of marine and forest resources, and development of safe communities. JSR Group will do its part to achieve the SDGs by creating value through its corporate activity.

> [United Nations Information Centre “What are the Sustainable Development Goals \(SDGs\)?”](#)

SUSTAINABLE DEVELOPMENT GOALS



As a Global Compact participant, we prepare "Communication on Progress" (COP) reports detailing our fulfillment of the compact's principles.

2. Corporate Mission

Materials Innovation
We create value through materials
to enrich society, people and the environment.

The corporate mission of JSR Group clearly identifies the company's raison d'être. By supplying materials that are indispensable to human societies, JSR aims to be trusted.

3. Management Policies - JSR's Fundamental Pillars of Management

Continuous Creation of Businesses

As society evolves, so does the demand for specialized materials and advanced products. JSR continuously evolves to anticipate and respond to changing marketing needs and, in doing so, achieves dynamic growth.

Enhancement of Corporate Culture

As society evolves, so will our organization. JSR will build on its existing positive corporate culture to create an organization and management style with the vitality to keep evolving.

Increase in Corporate Value

Aiming to increase corporate value by creating business opportunities through materials. To this end, we will focus on customer satisfaction and the fulfillment of employees.

4. Management Policies - Responsibility to Our Stakeholders

Responsibility to Our Customers / Business Partners

When interacting with our business partners and customers, JSR Group will:

- Constantly evolve to meet the demand for new materials
- Always strive to increase customer satisfaction
- Act in good faith and maintain fair and equitable business relations
- Continue to be socially and environmentally conscious throughout the supply chain

Responsibility to Our Employees

All employees should expect:

- To be evaluated and rewarded based on fair standards
- Continuous opportunities to grow by challenging themselves
- Acceptance of the diversity of fellow colleagues and to be provided a place where all employees can work together as a team

Responsibility to Society

All members of JSR Group will honor our responsibility to both the local and global communities through:

- Responsible and respectful business practices (Responsible Care) that considers the environment and safety
- Support for environmental conservation by providing eco-friendly products
- Reduction of our environmental impact throughout the entire product lifecycle

Responsibility to Shareholders

JSR Group will maintain its responsibility to its shareholders by:

- Aiming to increase corporate value by creating business opportunities through materials
- Constantly enhancing its management efficiencies
- Inspiring trust by being highly transparent and conducting sound corporate management practices

- Active contribution to conserving biodiversity throughout its business activities and the entire product lifecycle

5. 4C Course of Action

CHALLENGE

All employees of JSR Group should share a common, global focus and desire to succeed. Employees should feel confident to autonomously take on new challenges, learning from successes while viewing setbacks as opportunities to learn, grow and improve.

COMMUNICATION

All employees should feel comfortable and confident maintaining open lines of bi-directional communication at all levels within JSR Group. Employees should strive for organizational transparency through direct conversations as the best means to share value and achieve common goals, especially in the face of growth and diversification.

COLLABORATION

Employees will work together in the spirit of cooperation, valuing common, corporate goals over internal or departmental barriers. Employees will also be encouraged to actively collaborate with external resources and not be bound to conventional ideas.

CULTIVATION

All employees will cultivate an environment that supports bi-directional communication between managers and subordinates and provides opportunities to develop together as individuals and as members of productive, supportive teams.





▼ 1. Philosophy
▼ 2. JSR Group Activities



1. Philosophy

The JSR Group believes that there is a need to deeply understand global issues, such as the SDGs^{*1}, and other social problems apparent in various regions in order to carry out corporate activities. Activities to resolve these issues are new business opportunities, and are also linked to expanded business fields and enhanced corporate value. The JSR Group will do its part to achieve the SDGs by creating value through its corporate activity.

At the same time, we view the SDGs as challenges within the Group's management foundation and therefore promote activities that give attention to them in our internal operations.

*1 Sustainable Development Goals (SDGs):

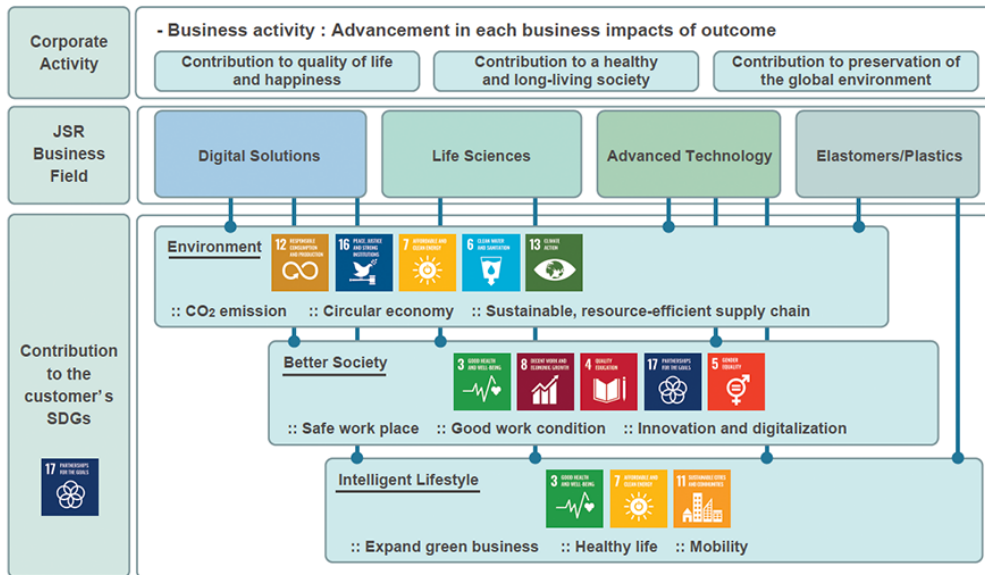
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- > [2020 New Year's greeting by the Representative Director and CEO](#) 
- > [Positive and Negative Impacts of JSR's Business Activities](#)
- > [Dialogue With Stakeholders 2019: JSR Group's Materiality and the SDGs](#)
- > [United Nations Information Centre "What are the Sustainable Development Goals \(SDGs\)?" \(external website\)](#) 

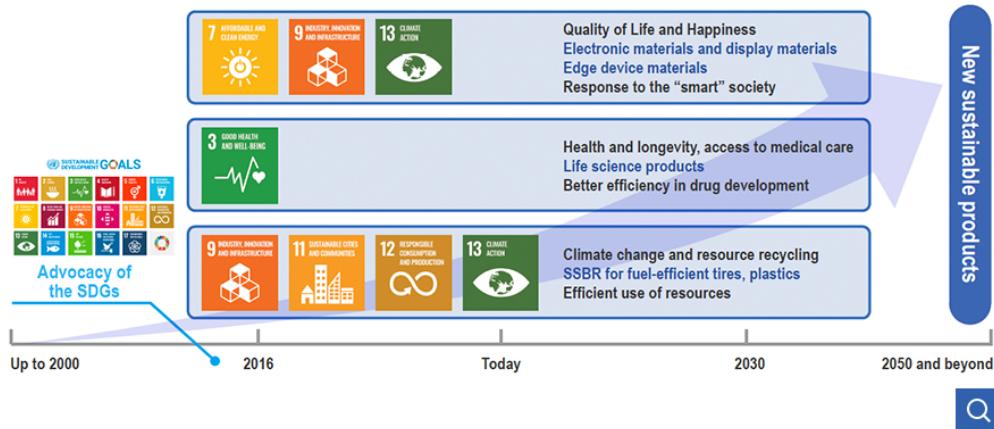
2. JSR Group Activities

(1) Contributions through business activities

The JSR Group helps resolve various social issues through business activities in line with growth scenarios for individual businesses that are oriented toward an "ideal" Group in 2030, as well as through business activities that seize new business opportunities. We know that we must continue to move quickly in response to changes in society's needs, supply new product lines that help resolve social issues, and work with our clients to contribute to achieving SDGs.



Example: Products that contribute to resolving social issues



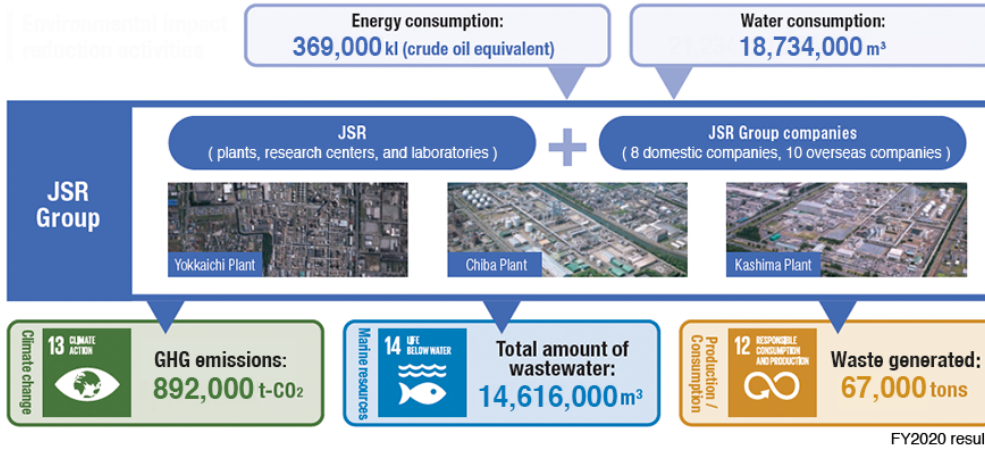
(2) Resolving management foundation challenges

The JSR Group believes that resolving challenges in the management foundation that supports JSR's business activities is linked to achieving the SDGs. For example, our product production has an impact on the environment in terms of consuming natural resources (namely energy and water), emitting greenhouse gases, and producing waste. We continue engaging in various activities to alleviate these effects. Moreover, we consider diversity initiatives aimed at broadening our human resources with respect for different values and "work-style innovation" aimed at improving labor productivity to be activities that are linked to achievement of the SDGs. We are thus working to promote them accordingly.

Management foundation : Advancement throughout the Group/Social/Environment/Governance

Corporate Activity	Environment	Social	Governance
Mid-term plan focus (Materiality)	<ul style="list-style-type: none"> Environmental Impact reduction 	<ul style="list-style-type: none"> Diversity, Equity, and Inclusion Work style innovation 	
Mid-term plan activity Set KPI target and measures	<ul style="list-style-type: none"> Reduce greenhouse gas emissions (TCFD initiatives) Promote reuse/recycle Reduce waste 	<ul style="list-style-type: none"> Employee engagement improvement Rebuild Corp HR system Re-define HQ functions/roles 	<ul style="list-style-type: none"> Independent Outside Directors A Diverse Board of Directors Nomination/Remuneration Advisory Committee
Index	<ul style="list-style-type: none"> Respond to climate change, environmental issues 	<ul style="list-style-type: none"> Employee engagement 	

Example: Activities to reduce environmental burdens





JSR Group sees the problem of climate change currently facing society as one of the most important issues for the company, and we are therefore actively working to reduce greenhouse gas emissions both internally and externally. It is in this context that we, as a corporate group, expressed our support for the TCFD Recommendations in October 2020. We believe that these recommendations will contribute to the development of a low carbon economy-oriented sustainable society. As a chemical company which is earnestly confronting climate change, we seek to deepen our understanding of the opportunities and risks that our Group's business activities affect, taking action accordingly and striving to proactively and publicly disclose our initiatives.

*TCFD:

The Task Force on Climate-related Financial Disclosures established by the Financial Stability Board. In June of 2017, the TCFD recommended that the impacts of climate change be disclosed in the financial reports of financial institutions, companies, governments, etc. More than 2,000 organizations around the world have endorsed the recommendations (as of May 2021; from data published by the TCFD).

The TCFD Recommendations call for disclosure of information pertaining to climate change-related governance, strategy, risk management and metrics and targets. JSR Group is taking the following action in line with these recommendations.

Governance	Strategy	Risk Management	Metrics and Targets
Development of a managerial governance structure relating to climate change risks and opportunities	Analysis of impacts that climate change-related risks and opportunities will have on business, strategic and financial planning	Development of framework for assessing and managing climate change-related risks and opportunities	Establishment and progressive disclosure of metrics and targets for managing risks and opportunities

1. Governance Structure Relating to Climate Change Risks and Opportunities

JSR utilizes a supervisory structure, overseen by the Board of Directors, to examine appropriate responses and decide upon what courses of action to take with regard to the potential business risks posed by climate change and other issues. Last year the position of Chief Sustainability Officer (CSO) was established, contributing to more robust supervision by the Board of Directors.

With regard to sustainability advancement activities, the Sustainability Committee headed up by the CSO is studying and pursuing activity-focused initiatives which align with our Basic Approach to Social Contribution.

In particular, this committee is pursuing discussion on how to accommodate the TCFD Recommendations in the context of our climate change response. The resolutions of this committee are reported to and discussed by the Sustainability Promotion Committee chaired by the president, and any priority matters are further reported to the Board of Directors. The recent expression of support for the TCFD Recommendations was decided through this process.

> [JSR Group Sustainability Advancement Structure](#)

2. Climate Change-Related Strategy, Risk Management and Metrics and Targets

In order to formulate climate change-related strategy, risk management and metrics and targets, JSR began by analyzing scenarios in line with the TCFD Recommendations. Assessment of Digital Solutions Business, Life Sciences Business, Elastomers Business and Plastics Business as JSR Group's core business domains began in fiscal 2019. Since then, business restructuring and major variables have been introduced; nevertheless, we have been working our way through the following and, as of 2020, have completed our qualitative scenario assessment (number (2) below). After examination and discussion by the Sustainability Committee and Sustainability Promotion Committee, the results have been reported to the Board of Directors. We are now moving forward with quantitative assessment preparations.

(1) Climate Change Significance Assessment

Socio-economic scenario assumptions

Formulation of business impact scenarios and determination of degree of impact

- (2) Climate Change Scenario Analysis (Qualitative Determination)
Investigation of risk and opportunity impact stemming from changes in JSR's business environment (scenarios) as a result of climate change
- (3) Climate Change Scenario Analysis (Quantitative Determination)
Quantification of impact that JSR scenarios will have on future business strategy and financial affairs, and strategic incorporation of results
- (4) Identification of Potential Implementation Measures
Determination of climate change strategy implementation measures and selection of management metrics

(1) Climate-Related Risk Significance Assessment

Climate change impact assessment was performed with regard to those social environments associated with JSR Group business.

*External information utilized includes IPCC_RCP2.6, RCP8.5, and IEA_B2DS

(2) Climate Change Scenario Analysis (Qualitative Determination)

A climate change impact-related scenario analysis for JSR business was performed based on the gravity of the climate-related risks.

1) Assessment Targets

Digital Solutions Business, Life Sciences Business, Elastomers Business and Plastics Business were chosen as JSR Group's core business domains.

2) Assessment Method

- 1. Based on the socio-economic scenario assumptions, relevant business impact scenarios were formulated and the degree of business-specific impact determined.
- 2. Based on the potential for, and impact on business (human loss, financial impact, etc.), of the above, particularly significant risks and opportunities were identified. In the course of this, factors such as trends in international discussion, development regions and other company's practices were considered.

3) Assessment Results

- 1. Impact Scenarios and Degree of Business-Specific Impact

Small ← Size of Impact → Large

High-Impact Risks / Opportunities	Risk	Opportunity	Impact on Business			
			Digital Solutions	Life Sciences	Elastomers	Plastics
World of +2°C						
Increased opportunities for life-cycle CO ₂ reduction (bring attention to climate change challenges)		✓	Dark Blue	Light Blue	Dark Blue	Dark Blue
Strengthening of GHG emissions regulations	✓		Light Blue	Light Blue	Dark Blue	Dark Blue
Establishment and increase of carbon costs	✓		Light Blue	Light Blue	Dark Blue	Dark Blue
Emergence of customers demanding decarbonated products (e.g., RE100)	✓		Dark Blue	Light Blue	Light Blue	Light Blue
Evolution of low-carbon energy sources	✓	✓	Light Blue	Light Blue	Dark Blue	Light Blue
Increased demand for environmentally-beneficial products	✓	✓	Light Blue	Light Blue	Dark Blue	Dark Blue
Fundamental lifestyle transformation		✓	Dark Blue	Light Blue	Light Blue	Light Blue
Mainstream adoption of sustainable finance	✓		Dark Blue	Dark Blue	Dark Blue	Dark Blue
Change in how human resources are secured	✓		Dark Blue	Dark Blue	Dark Blue	Dark Blue
Popularization of advanced decarbonization technology	✓	✓	Light Blue	Light Blue	Dark Blue	Dark Blue
Change in automotive industry / Increased mainstream adoption of EV	✓		Dark Blue	Light Blue	Dark Blue	Dark Blue
Increased need for recycling/reuse of tire materials	✓	✓	Light Blue	Light Blue	Dark Blue	Light Blue
Expansion in demand for recycled and recyclable resins	✓	✓	Light Blue	Light Blue	Light Blue	Dark Blue
More frequent flooding and more severe storm	✓		Light Blue	Light Blue	Light Blue	Light Blue

and flooding damage						
World of +4°C						
Increased opportunities for life-cycle CO ₂ reduction (bring attention to climate change challenges)		✓				
More frequent flooding and more severe storm and flooding damage	✓					
Rise in sea levels	✓					
Rise in temperature	✓					
Supply chain disruption due to more severe storm and flooding damage	✓					
Fundamental lifestyle transformation		✓				

2. Significant Risks and Opportunities

	< 2°C Scenario	4°C Scenario
Government / Legal Regulations	<ul style="list-style-type: none"> ● Strengthening of GHG emissions regulations ● Establishment and increase of carbon costs ● Mainstream adoption of sustainable finance 	
Suppliers	<ul style="list-style-type: none"> ● Establishment and increase of carbon costs (shifted to raw materials costs) ● Popularization of advanced decarbonization technology (CCUS, non-fossil raw materials adoption cost increase shifted to raw materials) ● Increased mainstream adoption of EV (increased naphtha demand due to decreased gasoline demand) 	<ul style="list-style-type: none"> ● Supply chain disruption due to more severe storm and flooding damage
JSR / Chemical Industry	<ul style="list-style-type: none"> ● Decarbonization of energy sources ● Popularization of advanced decarbonization technology (popularization of non-fossil raw materials) ● More frequent flooding and more severe storm and flooding damage 	<ul style="list-style-type: none"> ● More frequent flooding and more severe storm and flooding damage ● Rise in sea levels ● Rise in temperature
Customers / Society	<ul style="list-style-type: none"> ● Increased mainstream adoption of EV (decrease in gasoline automobile products / increase in EV products, shared cars) ● Emergence of customers demanding decarbonated products (e.g., RE100) ● Change in how human resources are secured (greater climate change-related urgency of younger generation creates greater competitiveness in securing talented human resources) ☆ Increased opportunities for life-cycle CO₂ reduction (increased demand by society for vehicular fuel efficiency regulatory compliance, resource conservation, etc.) ● Increased need for recycling/reuse of tire materials 	<ul style="list-style-type: none"> ☆ Increased opportunities for life-cycle CO₂ reduction (increased demand by society for vehicular fuel efficiency regulatory compliance, resource conservation, etc.) ☆ Fundamental lifestyle transformation (increased IoT usage (for remote conferencing, seminars, etc.))

<ul style="list-style-type: none"> ● Increased demand for environmentally-beneficial products <hr style="border-top: 1px dashed #ccc;"/> <ul style="list-style-type: none"> ☆ Fundamental lifestyle transformation (increased IoT usage (for remote conferencing, seminars, etc.)) 	
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● Risk, ☆ Opportunity, ◎ Either is possible

Blue: Transition risk Red: Physical risk

Moving forward, (3) Climate Change Scenario Analysis (Quantitative Determination) and (4) Identification of Potential Implementation Measures are being carried out, with the results being regularly revised each year and reported to and discussed by the Board of Directors within the context of an ongoing PDCA cycle.



▼ 1. JSR Group's Materiality
▼ 2. JSR Sustainability Challenge (Business Activity)
▼ 3. JSR Sustainability Challenge (Management Foundation)

1. JSR Group's Materiality

Under our Corporate Mission of "Materials Innovation - We create value through materials to enrich society, people and the environment," we aim to help bring about a sustainable environment and society by creating value through corporate activity. In 2015, we identified priority issues (in other words, our "materiality") based on this mission by organizing them with a matrix comprised of two axes; namely, "Importance for the JSR Group (Internal Factors)" and "Importance for Stakeholders (External Factors)." Looking to advance sustainability management through "integrated thinking," we plan to reassess the materiality that we specified back then in conjunction with our preparation of a set of new medium-term management policies.

* Integrated thinking: A way of thinking that sees corporate activity in its entirety by integrating financial and non-financial information

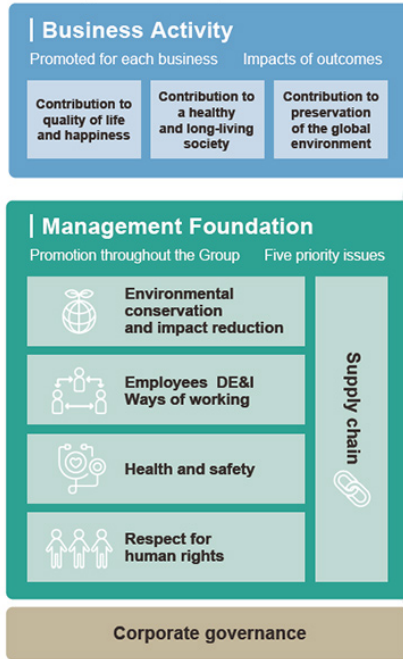
We originally planned to implement the new medium-term management policies in FY2020. However, with the global COVID-19 pandemic and uncertainties in the petrochemical market, we decided to postpone its announcement to focus on responding to the crises at hand. Nonetheless, we have been reassessing our materiality through the "JSR Sustainability Challenge," an effort to reorganize our materiality from two aspects—"Business Activity" and "Management Foundation"—based on points raised in a dialogue with experts we held in 2019. We completed our reassessment of the Business Activity component in 2019, and last year we did the same for the Management Foundation component. We are applying the results of these efforts in formulating medium-term management policies that will be presented in the "JSR Report."

> [JSR Report 2021 Management Policies](#) 

• JSR Group's Materiality

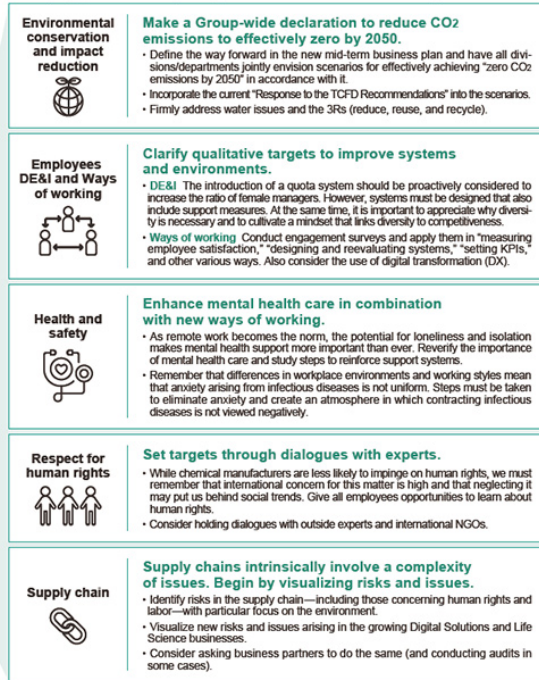
JSR Group's Materiality

●Materiality within JSR Group



Future Guidelines for Materiality (Management Foundation)

Clarify approaches to priority issues and set concrete targets.



We believe that these areas of materiality will evolve amid continuing changes in what society demands of us as well as in our various stakeholders' views and needs. We will therefore continue to review and identify materiality through the following operations.

- 1) Each year, we will confirm validity by conducting checks through engagement with experts, employees, responsible care activities, and the like.
- 2) Whenever we formulate new medium-term management policies, we will ensure (and periodically review) the transparency and acceptability of the processes that we apply when specifying materiality by exchanging views with experts.

In addition, we asked Mr. Keisuke Takegahara of the Development Bank of Japan, Inc. who enlightened us with his views during the 2019 dialogue with experts and through the "JSR Sustainability Challenge," to comment on our freshly reorganized materiality following our reassessment of the recent Management Foundation component.

We will continue promoting sustainability management across the entire JSR Group by taking Mr. Takegahara's insights into account.

Looking back at the process of developing the "new materiality" from the 2019 dialogue

First of all, I wish to express my respect for your efforts over the past two years, as you have endeavored to specify materiality that reflects the characteristics of your company in terms of both its business activities and management foundation. The process of reassessing the creation of value from many sides with the help of many employees is, in itself, extremely meaningful. However, I believe that the essence of your undertaking is found in your new system's "flexibility," which was revealed through the process of addressing materiality from the dual aspects of value creation and supporting organizational sustainability.

In your work to specify materiality with respect to your business activities, which you carried out previously in 2019, there was a strong focus on measuring the impacts that your businesses have. The stance of quantifying the value to be created and then reflecting it in business plans is extremely pioneering and in step with cutting-edge discussions on non-financial information disclosure. Visualizing the impacts of business activity by specifying materiality will undoubtedly lead to smoother discussions on strategic planning and portfolio changes in each business. And more importantly, I believe it provided a good opportunity for the employees who participated in the process to recognize impacts and brought about a higher level of integrated thinking.



Keisuke Takegahara
Executive Fellow and General Manager of the Research Institute of Capital Formation, Head of the Research Center on Financial Economics, Development Bank of Japan, Inc.
Member of METI's "The Study Group on Environmental Innovation Finance"
Member of the "TCFD Consortium Steering Committee"

In the next phase, your reassessment of the Management Foundation component, your main emphasis was on thorough in-house discussions conducted through joint workshops. You applied several inventive approaches, including (1) pursuing depth that leads to strategy rather than exhaustiveness, and (2) setting an approach that involves regularly checking validity and making reassessments in order to respond to constantly changing external expectations. From this, it is clear that this undertaking was not a superficial one intended for a report, but was instead one aimed at creating practical tools that support business (value creation).

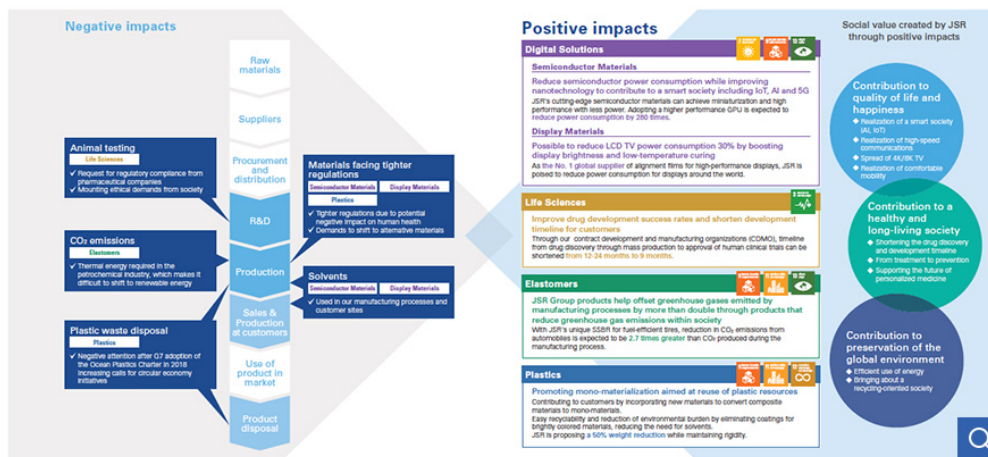
At first glance, I was surprised to see “environmental conservation and impact reduction” at the top of your pared-down “materiality” list. In the case of your company, where many business activities are directly linked to the solving of social issues, much can be said about the environment within the context of value creation. However, you stressed the diversity of environmental aspects that are outside of CO₂, and you even went so far as to position it as a material element in your management foundation. To some extent, this may be because the successes of your Responsible Care[®] activities—which, like health and safety, have taken root as a foundation for your business—received renewed recognition as a result of broad employee involvement. At the same time, it can be taken as a statement that monetized environmental measures are mentioned within the Business Activity component and themes, which are expected to move toward the realm of value creation in the future, are recognized as materiality relating to organizational sustainability. In other words, it can be seen as an indication that your company is oriented toward dynamic materiality analysis that can flexibly respond to changes in the external environment. As with impact analysis, your approach here promises to improve engagement among participating employees and enhance their literacy with respect to your company’s non-financial strengths (intangible assets).

I would like to make the following two requests in the interest of bringing even more clarity to the uniqueness of your approach. First, I hope you will present the kind of long-term vision that should be behind such efforts to specify materiality. Given that achieving “net zero emissions” by 2050 has become a de facto common goal, the presentation of a long-term vision and a transition strategy for achieving it is more important than ever before. It is also desirable in the sense of reinforcing the outcomes of materiality specification. Secondly, I hope you will strengthen the connection between the “business” materiality and the “foundation” materiality that you specified over the past two years. You are currently conducting a bold review of your business portfolio. One focus of this review is the sale of your elastomers business, which is JSR’s original business. In light of this, I am concerned that time gaps between the “business” materiality evaluations and the “foundation” materiality evaluations may weaken your management strategy message. Now that both aspects of your materiality are in place, I hope that you will move forward with an integrated review and place greater emphasis on the dynamic nature of your materiality awareness.

2. JSR Sustainability Challenge (Business Activity)

Discussing materiality means considering the impacts that our business activities have on society—both the positive and the negative—and then striving to help bring about a sustainable global environment and society while also addressing the highly uncertain environmental changes of the modern world. As was detailed above, during FY2019 we held interviews with each of our business units and then made numerical calculations of the negative and positive impacts of our activities to the greatest extent possible. And prior to this, we reexamined outcomes for society (i.e., the value we provide to society) and reorganized the materiality of our “Business Activity.” For details, please refer to the FY2020 Sustainability Report or JSR Report (Integrated Report).

• Outline of the JSR Sustainability Challenge (Business Activity)



- > [Report Archive "JSR Group Sustainability Report 2020"](#)
- > [JSR Report 2020 "JSR Sustainability Challenge"](#) [PDF](#)

3. JSR Sustainability Challenge (Management Foundation)

In the Business Activity component, which we reassessed first, we addressed the challenges of improving literacy in the sense of gaining a firm understanding of business, social and technological environments—which was an issue raised in our 2019 dialogue with experts—and of quantifying impacts based on that understanding. We aggregated impacts of the outcomes that JSR Group can provide through its “business activity” into three areas: “contribution to quality of life and happiness,” “contribution to a healthy and long-living society,” and “contribution to preservation of the global environment.” Then we positioned these impacts as materiality in “Business Activity.” For the Management Foundation component, which we reassessed next in 2020, we proceeded with the aim of having in-depth discussions focused on what will be important for 2030 (2050 for the environment) with respect to our previously exhaustive view of materiality.



Work on the JSR Sustainability Challenge (Management Foundation) done entirely through remote workshops

First, several workshops were held by young employees from various departments who are destined to lead the company’s next generation with a diversity-oriented perspective. The workshops studied priorities under the theme of “reorganizing priority issues from a long-term perspective” and ultimately selected “the environment,” “employees (DE&I, ways of working),” “health and safety,” and “respect for human rights.” They were followed by another workshop that brought in specialized departments. It held discussions that went even deeper into topics that demand particular attention—namely, “employees” and “safety and health”—and set provisional targets with a view to “life with COVID-19” and “life after COVID-19.”

For “the environment,” a topic that continues to gain momentum both internationally and domestically, the workshop conducted a joint interview survey with the general managers of seven departments whose positions afford a bird’s eye view of our value chain. The survey brought an exchange of views that included references to preceding TCFD scenario analyses. The results led to an affirmation that JSR Group will work as one to tackle the long-term goal of “environmental conservation and impact reduction” by bearing in mind that “the environment” is a multifaceted issue encompassing water, waste, and energy in addition to CO₂.

In its final redefinition of materiality, the workshop affirmed the need to address “environmental conservation and impact reduction” and “respect for human rights” within the supply chain. It then assembled its conclusions as “JSR Group’s Materiality.” The workshop sent the redefined materiality to the Sustainability Planning Committee for deliberation before reporting it to the Sustainability Promotion Meeting chaired by the President.

Through our endeavor to formulate the “JSR Sustainability Challenge (Management Foundation),” we have constructed the “materiality” for a management foundation that supports business activities geared towards providing value to society. In steadfastly putting this materiality into practice, we believe we have created an environment for building a positive cycle in all aspects of our operations, one allowing us to enjoy robust growth while meeting society’s demands in an era of great change.

- JSR Sustainability Challenge (Management Foundation): An overview of the formulation process

Two workshops by young employees

The workshops studied the prioritization of JSR's important activity themes. The study was led by ten young employees who had no leanings toward any specialized departments and who took balance of diversity into account.

The environment

Employees
DE&I* and Ways of working

Health and safety

Human rights

The above issues were identified. Constructive views were gathered from employees throughout the company rather than specialized departments.

•An issue revealed from the workshops:

- ✓ Because the workshops were not focused on specialized departments, discussing quantitative targets proved difficult and targets could not be derived.

*DE&I: Diversity, equity, and inclusion

A way of thinking that seeks to provide information, opportunities, and resources to a diverse range of people (e.g., people of different genders, nationalities, age) and thereby give them the chance to succeed according to their own characteristics and abilities.

Workshop involving specialized departments

Based on the results of the two workshops, we took an in-depth look at the key issues of "the environment" and "employees" with specialized departments.

①Employees

•Opinion exchange between specialized departments and employees of other departments

- ◆Discussions concerning "DE&I" focused on ways of increasing the ratio of women in management positions. Most participants favored establishing quantitative targets that adopt a quota system for a certain period of time along with support measures.

For "Ways of working," the consensus was to use engagement surveys as an indicator. All participants agreed that remote work is a positive thing. However, they also argued that individual issues faced by departments and individuals should be monitored and addressed.

- ◆Mental health care will be stressed in the area of health and safety.

②The environment

•Views were exchanged by seven general managers of departments involved in the supply chain.

- ◆Hold thorough discussions and present objectives that include quantitative targets based on the policies and business targets of the mid-term business plan. A balance must be achieved between economic rationality and the resolution of social issues.

Rearrangement into five new areas of materiality

Environmental conservation and impact reduction

- Make a Group-wide declaration to reduce CO2 emissions to effectively zero by 2050.

Employees DE&I and Ways of working

- Clarify qualitative targets to improve systems and environments.

Health and safety

- Enhance mental health in combination with new ways of working.

Respect for human rights

- Set targets after conducting studies and holding dialogues with experts, etc.

Supply chain

- Supply chains intrinsically involve a complexity of issues. Begin by visualizing risks and issues.





<ul style="list-style-type: none"> ▼ 1. Sustainability Promotion Committee
<ul style="list-style-type: none"> ▼ 2. Sustainability Planning Committee
<ul style="list-style-type: none"> ▼ 3. Environment, Safety and Quality Committee
<ul style="list-style-type: none"> ▼ 4. The Risk Management Committee
<ul style="list-style-type: none"> ▼ 5. The Corporate Ethics Committee

Under the corporate mission "Materials Innovation - We create value through materials to enrich society, people and the environment," JSR Group aims to build and maintain good relationship with all of our stakeholders and become an indispensable corporate citizen. And we will promote initiatives that benefit all stakeholders—customers and business partners, employees, society, the environment, and shareholders.

1. Sustainability Promotion Committee

Following the June 2020 General Meeting of Shareholders, JSR Group restructured its CSR Committee into a new Sustainability Promotion Committee. This move was made to promote activities that benefit all stakeholders by creating value through not only CSR (corporate social responsibility) but also all areas of corporate activity. Our aim here is to use our Corporate Mission as the basis for building a good relationship with various stakeholders and become a company that is trusted and needed.

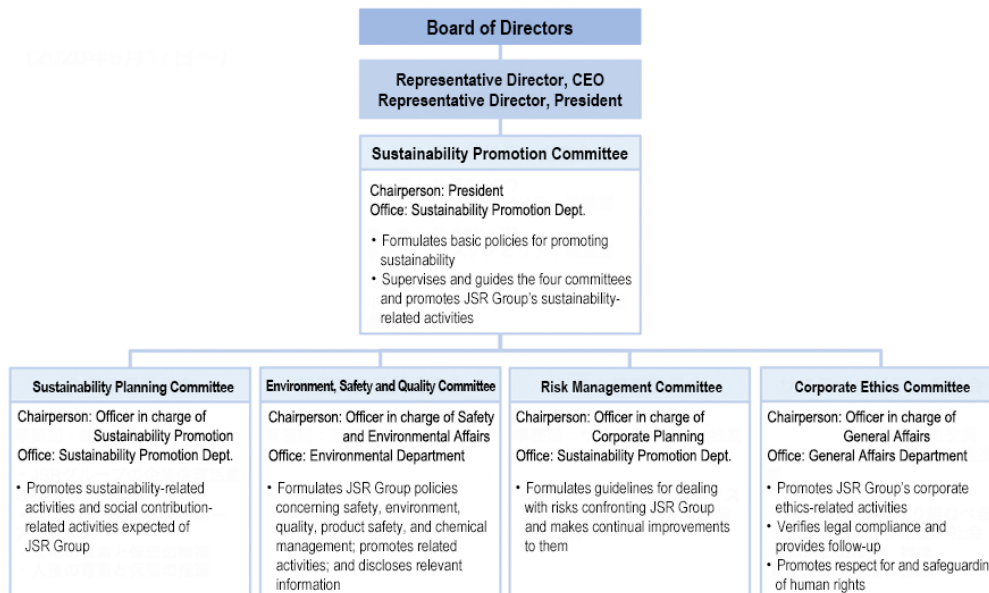
To discuss and adjust matters related to sustainability, starting with policies on sustainability activities, based on the internal and external state of affairs related to ESG/SDGs, the Sustainability Promotion Committee has established four committees: The Sustainability Planning Committee, Environment, Safety and Quality Committee, Risk Management Committee, and Corporate Ethics Committee. The Sustainability Promotion Committee supervises and guides the four committees, and also strengthens and promotes their management through regularly scheduled meetings (held four times annually) as well as extraordinary meetings. In principle, the Committee also reports on activities once every quarter to the board of directors and undergoes supervision/observation by the board of directors.

The Sustainability Promotion Committee is chaired by the President. Participants are the officers responsible for manufacturing, manufacturing technologies, safety and environmental affairs, research and development, human resources development, accounting and financial affairs, corporate planning, corporate communications, legal affairs, general affairs, raw materials and equipment procurement, production and distribution, quality assurance, the Elastomers Business, the Plastics Business, the Digital Solutions Business, and the Life Sciences Business. Also participating are the offices of the four aforementioned committees. The Sustainability Promotion Council operates with a structure that covers all businesses and functions of the Group.

We endeavor to build confidence among our all stakeholders by disclosing information on the content and results of those activities in the Sustainability Report.

Moreover, we strive to raise Sustainability Report's reliability and transparency by subjecting it to third-party certification.

> [Third-party certification.\(PDF 603KB\)](#) [PDF](#)



2. Sustainability Planning Committee

JSR Group maintains a Sustainability Planning Committee that is chaired by the officer in charge of sustainability promotion.

This committee studies and promotes corporate activities oriented toward "sustainability." They include Creating Shared Value (CSV) activities through co-creation with business departments, activities associated with the Task Force on Climate-related Financial Disclosure (TCFD), and responses to climate change. The committee also addresses social contribution activities by studying new undertakings and advancing existing activities based on JSR Group's Philosophy for Social Contribution.

> [Click here for details concerning our social contribution-related initiatives.](#)

3. Environment, Safety and Quality Committee

We believe "making sustainable development possible" is an important form of corporate responsibility. We therefore address the environment, safety, and quality through an approach centered on "responsible care." Because we see this as a management priority, we strive to effectively promote company-wide activities in these areas by maintaining an Environment, Safety and Quality Committee. This committee is chaired by the officer in charge of product safety and quality assurance/safety and environment affairs.

The committee approves plans that concern responsible care activities within the contexts of the environment, safety, and quality. It also evaluates and verifies the results of these activities. The committee additionally strives to maintain and improve responsible care as it pertains to the elimination of accidents, reduction of environmental impacts, chemical management, and product safety.

> [Click here for details concerning our responsible care-related initiatives.](#)

4. The Risk Management Committee

We believe that preventing major crises and minimizing their effects on business activities should they occur are important management challenges. Given this, we have formulated Risk Management Policies and established a Risk Management Committee that is chaired by the officer in charge of corporate management.

The Risk Management Committee promotes continuous improvement of response guidelines and response plans for both manifested and potential crises.

> [Click here for details concerning our risk management-related initiatives.](#)

5. The Corporate Ethics Committee

JSR Group practices and promotes corporate ethics by setting down the JSR Group Principles of Corporate Ethics—a code of conduct for fulfilling our "responsibility to our stakeholders," one of the management policies that support the realization of

our management philosophy—and establishing a Corporate Ethics Committee chaired by the officer in charge of general affairs.

This committee makes certain that JSR's Course of Action is recognized throughout the Group as a statement demanding compliance in daily corporate activity. It also regularly confirms the circumstances of compliance each year and works to continually improve them.

Our concern for ethics also extends to our internal reporting system. For employees, we have an internal hotline connected to the Corporate Ethics Committee, an external hotline connected to a designated independent attorney, and an external hotline connected to an independent and specialized outside organization that is capable of handling communication in English, Chinese, Korean, and Thai. We have also set up an external hotline for our business partners.

> [Click here for details concerning our corporate ethics and compliance-related initiatives.](#)



▼ **Management System**

- > [Responsible Care](#)

▼ **Environmental Conservation**

- > [Environmental Impact Reduction \(Input and Output\)](#)
- > [Climate Change Mitigation](#)
- > [Water Resources](#)
- > [Waste Reduction](#)
- > [Biodiversity Conservation](#)
- > [Other Approaches](#)
- > [Environmental Accounting](#)

▶ **Security and Accident Prevention**

▶ **Occupational Health and Safety**

▶ **Logistics Safety**

▼ **Chemical and Product Safety**

- > [Chemical Management](#)
- > [Product Safety](#)

▼ **Communication with Society**

- > [Communication with Stakeholders](#)



<ul style="list-style-type: none"> ▼ 1. Responsible Care Policy <ul style="list-style-type: none"> (1) Policy (2) International Initiatives
<ul style="list-style-type: none"> ▼ 2. RC Advancement Structure
<ul style="list-style-type: none"> ▼ 3. Environment and Safety Management <ul style="list-style-type: none"> (1) Compliance (2) Environmental Management System (3) Safety Management System (4) Audits (5) Environment Distinguished Service Award
<ul style="list-style-type: none"> ▼ 4. Stakeholder Engagement
<ul style="list-style-type: none"> ▼ 5. Disclosure of Legal and Regulatory Violations

1. Responsible Care Policy

(1) Policy

Seeing occupational safety, security and accident prevention, environmental conservation, and product safety as key foundations for its business activities, the JSR Group conducts all business undertakings under the following Responsible Care® (RC) policy.

- 1) We strive to ensure the safety of employees and local communities, and to contribute to environmental conservation and a sustainable global environment by ascertaining risks associated with our business activities and executing countermeasures.
- 2) We strive to comply with laws, ordinances, and voluntary regulations by gathering information on and ensuring the full development of laws and regulations required for business activity.
- 3) We strive to ensure the safety of our products by developing products with consideration for safety, health, and the environment and providing information about them.

> [Responsible Care® \(RC\)](#)

(2) International Initiatives

JSR Signs Declaration Supporting RC Global Charter

The Responsible Care (RC) Global Charter is a voluntary activity policy adopted by the International Council of Chemical Associations (ICCA) and shared by the chemical industry to enhance and reinforce RC activities around the world. JSR subscribes to this activity policy, and has signed a declaration supporting the RC Global Charter in October 2008. JSR has also signed the revised RC Global Charter in March 2015. By signing this declaration, JSR has committed itself to making even greater contributions to health, safety, and environmental preservation not just in Japan, but around the world.



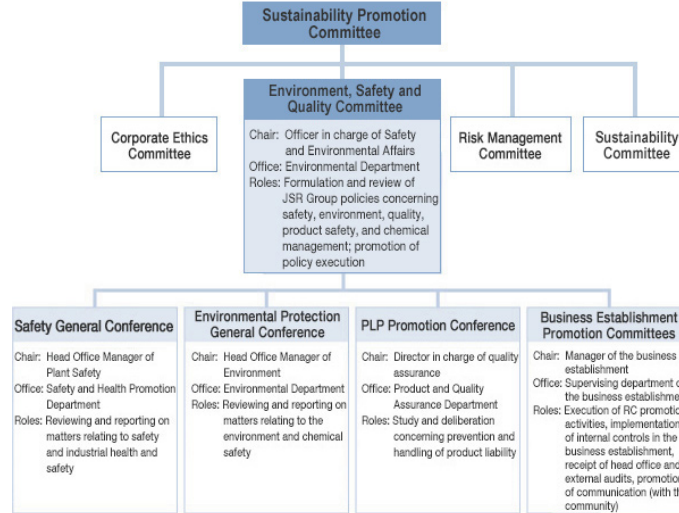
Declaration of support for RC Global Charter

2. RC Advancement Structure

Led by the officer in charge of safety and environmental affairs, the Environment, Safety and Quality Committee formulates activity policies and action plans concerning JSR Group's environment, safety, quality, product safety, chemical management, and other matters and manages the results of those activities.

For the execution of concrete operations, the Environment, Safety and Quality Committee sets up various meetings and committees and then proceeds according to plans.

Additionally, contents deliberated on and approved by this Committee are presented to the Sustainability Promotion Committee, of which the President serves as the chairperson.



> [Details of the Sustainability Promotion Committee and Four Committees \(Sustainability Management and Advancement Structure\)](#)

3. Environment and Safety Management

(1) Compliance

When environmental and safety laws are adopted, enacted, or amended, the Head Office distributes information to each business site to keep them fully informed. The JSR Group identifies laws and regulations requiring compliance in each country based on compliance regulations and conducts annual self-checks to ensure that business practices conform with laws and regulations.

Additionally, we actively promote all plants to acquire plant and operator certification under the High-Pressure Gas Safety Act in Japan, the Fire Service Act in Japan, and Industrial Safety and Health Act in Japan in order to strengthen our safety management systems, prevent accidents, and improve our responses to emergencies. We will continue to maintain and upgrade certifications with the aim of improving safety and preventing accidents.

> [Security and Accident Prevention "3. Compliance Confirmation and Certification"](#)

(2) Environmental Management System

By 1999, all three main domestic JSR plants had acquired ISO 14001 certification, an Environment Management System that supports environmental management. We have kept our certifications up to date each year since. We proceeded with preparations in response to ISO 14001 revisions that were released in September 2015 and brought all three of our plants in line with them by January 2018.

JSR Group companies, mainly manufacturing companies, have also obtained ISO certification, and are promoting environmental conservation activities using a management system that complies with the ISO14001 standard.

ISO 14001 Certification (Manufacturing Bases)

JSR (3 locations)	Domestic Group companies (5 companies)	Overseas Group companies (10 companies)
Yokkaichi Plant Chiba Plant Kashima Plant	Elastomix Co., Ltd. Emulsion Technology, Co., Ltd. Techno-UMG Co., Ltd. Japan Coloring Co., Ltd. JSR Micro Kyushu Co., Ltd.	JSR Micro Korea Co., Ltd. JSR Micro Taiwan Co., Ltd. Elastomix (Foshan) Co., Ltd. PT Elastomix Indonesia JSR BST Elastomer Co., Ltd. ELASTOMIX (THAILAND) CO., LTD. JSR Micro N.V. EUV Resist Manufacturing & Qualification Center N.V.

(3) Safety Management System

We develop and operate a safety management system that takes into account notices issued by the Ministry of Economy Trade and Industry. This is part of our process safety management for maintaining the functions and safety of our chemical plants. We also build and manage a health and safety system that is based on the Occupational Health and Safety Assessment Series (OHSAS). The system is designed to manage the industrial health and safety risks to employees and others concerned, continuously improve our industrial health and safety systems, and reduce workplace accidents and health disorders.

> [Security and Accident Prevention "1. Management System, Advancement Structure and Policy"](#)

(4) Audits

1) Headquarters Environment and Safety Audits and Certified High-Pressure Gas Establishment Audits

To verify system soundness, JSR Headquarters conducts annual audits of the company's plants and research laboratories, with the President acting as head of the auditing team. When conducting these audits, Headquarters employs a style whereby it shares and discusses issues challenges faced by audited departments. It also sets up dialogues between top management and employees, serving as an opportunity for the two sides to share thoughts and stimulating environmental and safety activities. Headquarters also conducts audits of certified high-pressure gas establishments.

Audits in FY2020 were conducted online due to the COVID-19 pandemic. Through our Environment Audits, we confirmed the state of activities at our business establishments. In our Safety Audits, we verified that awareness of "safety first" had penetrated throughout the organization and that improvements in safety activities were made. And in our Certified High-Pressure Gas Establishment Audits, we found no cases of non-compliance at any of the targeted business establishments.

Details on the Safety Audits and Certified High-Pressure Gas Establishment Audits are available at the following link.

> [Security and Accident Prevention "9. Inspections and Monitoring"](#)

2) Environment and Safety Audits in JSR Group Companies

At JSR, we implement environmental and safety audits using the JSR audit system at our Group companies in Japan that are involved in production, transportation, and engineering processes in order to achieve integrated Responsible Care activities. The audits have allowed us to verify activities in each company and share information on them.

In FY2020, audits were conducted online due to the COVID-19 pandemic, and JSR was able to confirm the state of activities by each company, and encourage sharing of information. Audits of overseas Group companies were postponed.

Details on these activities are available at the following link.

> [Security and Accident Prevention "9. Inspections and Monitoring"](#)

(5) Environment Merit Award

To further encourage environmental protection activities, we created the Environment Merit Award for employees who have made important contributions to environmental protection through a range of activities that include environmental product and technology development, environmental impact reduction, and assisting local communities with environment-related issues. Eleven employees received this award for three areas of excellence in FY2020.

Business establishment	Description
Yokkaichi Plant	Stabilization of effluent treatment based on drainage loading simulation linked to the production plan
Yokkaichi Plant	Improvement of VOC flare equipment recovery rate through strengthened control of exhaust gas
Chiba Plant	Cutback of waste generation based on sludge volume reduction

4. Stakeholder Engagement

By applying the PDCA cycle based on dialogues with our various stakeholders, we identify new issues, make frequent improvements and responses, and contribute to the building of a better society. Please access the links below for more details.

> [Communication with Stakeholders](#)

5. Disclosure of Legal and Regulatory Violations

There were no legal or regulatory violations of laws pertaining to the environment, safety, quality, product safety, or chemicals in FY2020.

We are working to prevent recurrence of cases similar to those that occurred in the past by continuing preventative measures and providing periodic education on those cases.

What is RC?

RC is an acronym for Responsible Care[®]. In the chemical industry, each company handling chemical substances is responsible for ensuring that safety, health, and environmental issues are addressed throughout the chemical lifecycle, from development and production to distribution, use, and disposal, publishing the results of their activities and maintaining dialogue and communication with society - all voluntarily. This initiative is called "Responsible Care."



Started in Canada in 1985, Responsible Care is practiced in the chemical industries of 62 countries and regions of the world (as of 2017). It has attracted considerable international attention as a unique initiative unseen in other industries, and is even encouraged in an action plan (Agenda 21) for implementation by countries and related international organizations to achieve sustainable development in the 21st century that was adopted at the "Earth Summit" (United Nations Conference on Environment and Development) held in Rio de Janeiro, Brazil in June 1992.

> [Japan Chemical Industry Association HP What Is Responsible Care?](#) 

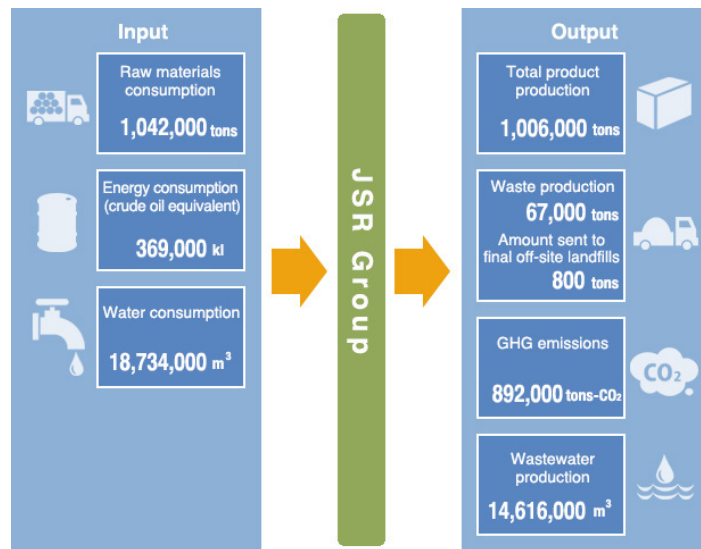


Environmental Impact of Business Activities

The JSR Group strives to comprehensively and efficiently reduce its environmental impact by quantitatively ascertaining and closely analyzing its consumption of energy and resources in its business activities (input) as well as its product production, emissions into the environment, waste production, and other data (output).

The chart provides an overview of JSR Group's environmental impact (material balance) in FY2020. It presents totals for three items as input (raw materials consumption, energy consumption and water consumption) and five items as output (total product production, waste production, amount sent to final off-site landfills, greenhouse gas (GHG) emissions, and wastewater production).

> [JSR Group ESG Data](#) [PDF](#)





<ul style="list-style-type: none"> ▼ 1. Philosophy
<ul style="list-style-type: none"> ▼ 2. Initiatives to Reduce Greenhouse Gas (GHG) Emissions <ul style="list-style-type: none"> (1) JSR (2) Head Office Building (3) Logistics: Improving Transport Efficiency
<ul style="list-style-type: none"> ▼ 3. JSR Group's GHG Emissions and Energy Consumption

1. Philosophy

Environmental problems attributable to global warming (e.g., forest fires, droughts, water shortages, rising sea levels, threats of extinction, and impacts on ecosystems) are occurring on a global scale. Such problems are also seen in Japan. They are represented by floods caused by torrential rains, health problems such as heatstroke that result from more and more days of extreme heat, and impacts on ecosystems, such as coral bleaching.

The JSR Group recognizes this as an important issue. Therefore, with the aim of helping realize a low-carbon society, we strive to lower our GHG emissions by, for example, reducing the amount of energy needed in the various processes of producing and supplying our products.

In recent years, there has been a global trend whereby businesses are managing GHGs (Scope 3) indirectly emitted from their supply chains and disclosing their emissions. The JSR Group also calculates and ascertains its emissions based on the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain issued by Ministry of the Environment, Government of Japan.

Scope 1: Direct GHG emissions by sources owned or managed by a company or household (use of fuel: factory, heater, private automobile, etc.)

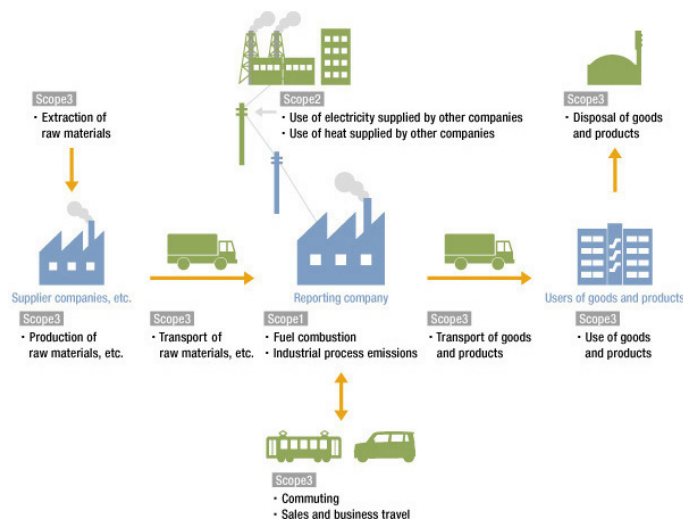
Scope 2: Indirect GHG emissions from the use of electricity, steam, or heat (use of purchased electricity, etc.)

Scope 3: Other indirect emissions besides Scope 2.

("Company" includes the procurement of raw materials, employee business trips, subcontracting of waste disposal, etc.)

"Household" includes the purchase of products, travel, subcontracting of waste disposal, etc.)

> [JSR Group ESG Data](#) [PDF](#)



2. Initiatives to Reduce Greenhouse Gas (GHG) Emissions

(1) JSR

Since FY2005, we have been striving to upgrade our energy-saving technologies through various approaches, including installing fuel conversion at the Kashima Plant (South Kashima Power Plant, Inc.) and introducing cogeneration facilities and a sludge dryer system at the Yokkaichi Plant. We thus achieved a significant GHG emissions reduction of 21.6% by FY2013 compared to the FY2005 level.

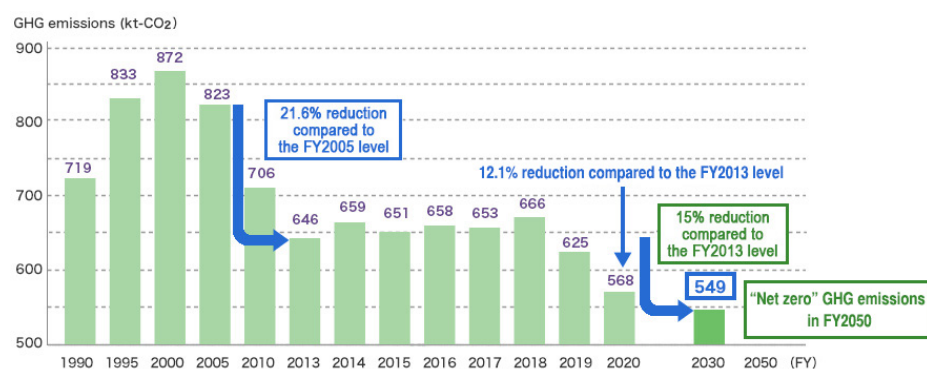
For this reason, in FY2019, we set a long-term goal of "reducing emissions by 15% in FY2030 compared to the FY2013 level." We are endeavoring to further reduce GHG emissions by introducing highly efficient equipment and using renewable energy in addition to our energy consideration activities.

In FY2020, our emissions fell by 12.1% compared to the FY2013 level, due to energy-saving activities as well a decrease in the volume of production.

As a response to TCFD, we are continuing to identify risks and opportunities with respect to climate change through scenario analyses and formulating medium- and long-term responses.

➤ [Response to the TCFD Recommendations](#)

GHG emissions (kt-CO₂)



Natural gas-fired turbine cogeneration system (Yokkaichi Plant)

Using natural gas as fuel

Reduces CO₂ emissions as compared to coal- or heavy oil-fired steam boilers and condensing steam turbine systems.



Sludge dryer system (Yokkaichi Plant)

Reduces the amount of combustion support fuel (heavy oil) used in onsite incineration by drying high-water-content sludge that is produced by comprehensive wastewater treatment facilities and using it as fuel.

(2) Head Office

The Tokyo Metropolitan Government requires major tenants of a building occupying a floor area of at least 5,000 square meters or consuming at least six million kWh of electricity annually to reduce its CO₂ emissions under the Tokyo Metropolitan Ordinance on Environmental Preservation.

Although we are not subject to this obligation, we are promoting energy conservation on our own initiative by voluntarily setting a specific power-saving target.

In FY2020, our power consumption fell below the base year average as a result of implementing working-from-home, in addition to the main initiatives described below, and we achieved a 23.4% reduction in our emissions compared to the base year average.

Power-Saving Target

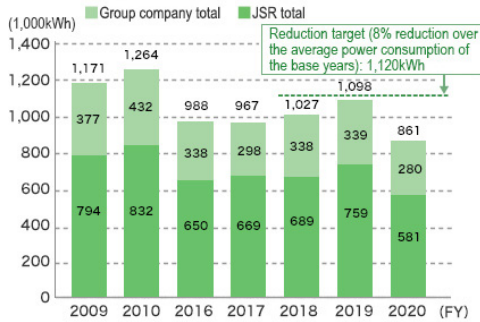
8% reduction compared to the average power consumption from the base years of FY2009 and FY2010

Major Efforts

- Policy of turning off lights and office equipment such as printers when not in use.

- Maintaining a proper air-conditioned room temperature that achieves a balance between energy-saving and operational efficiency.

Power Consumption at the Head Office



(3) Logistics: Improving Transport Efficiency

As part of our environmental efforts in transportation, we have taken steps to reduce our transport energy use as a designated shipper under the amended Energy Conservation Act. We are working to reduce per-unit transport energy by switching to large-scale transport and making a modal shift from road to rail and water transport.

In FY2020, as a result of policies to transport goods and raw materials by railway and ship, we achieved a modal shift of approximately 83%, thus maintaining last year's high level, and successfully controlled worsening of per-unit transportation energy caused by a reduction in transportation volume.

FY	2013	2016	2017	2018	2019	2020
CO ₂ emissions (tons)	22,960	25,495	24,437	24,208	20,211	15,517
Category 4 Transportation and delivery of raw materials and other materials	10,489	14,133	13,177	13,112	10,706	7,559
Category 5 Transportation of waste from plants	164	206	195	202	193	168
Category 9 Transportation and delivery of products	12,307	11,156	11,065	10,894	9,312	7,790
Transport volume (million ton-kilometers)	492	562	534	514	434	324
Modal shift rate (%)	83	87	86	85	85	83
Energy consumption (kl: crude oil equivalent)	9,026	9,898	9,899	9,324	7,855	6,052
Energy intensity (kl/1,000 t-km)	0.0183	0.0176	0.0178	0.0181	0.0181	0.0187

* Ton-kilometer: Freight Tonnage (ton) x Transport Distance (km)

3. JSR Group's GHG Emissions and Energy Consumption

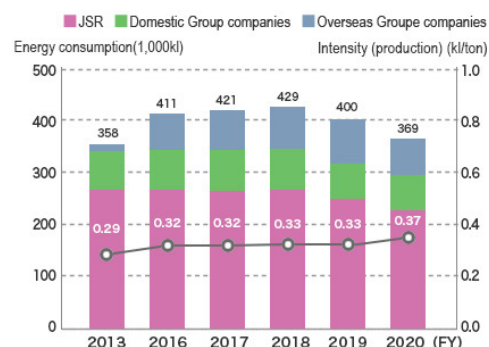
We also reduced our GHG emissions and energy consumption in FY2020 as a result of lower production volume as well as our various energy conservation activities. (GHG emissions: 8% year-on-year reduction; energy consumption: 8% year-on-year reduction)

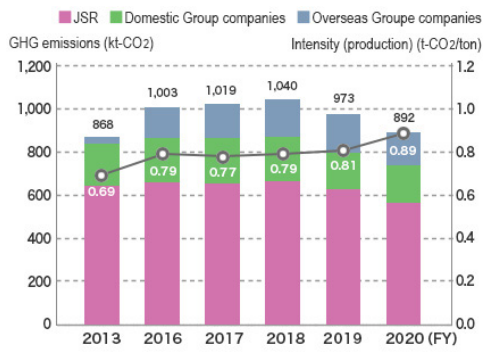
As a response to TCFD, we are making approaches toward reducing GHG emissions on a global scale.

➤ [Response to the TCFD Recommendations](#)

GHG emissions

Energy consumption







Environment Water Resources

- ▼ 1. Philosophy
- ▼ 2. Breakdown of water consumption (by intake source) and recycling rate
- ▼ 3. JSR Group's Water Consumption and Total Amount of Wastewater

1. Philosophy

Water is an essential resource for living beings. Globally, freshwater, in particular, is an extremely valuable resources. In Japan, as in other countries, water resources are being affected by natural disasters caused by abnormal weather events, some of which are a result of climate change. This makes the appropriate management of water resources a necessity. JSR Group uses such water resources for drinking water, of course, but also as a raw material and coolant in its manufacturing processes. We strive to recycle water in our processes and, after it is used, appropriately purify it before discharging it to rivers.

> Environmental load (COD discharges, total nitrogen emissions, total phosphorus emissions) → [JSR Group ESG Data](#)

2. Breakdown of water consumption (by intake source) and recycling rate

JSR consumed 13,620,000 m³ of industrial water, groundwater^{*1} and tap water in FY2020. Of this amount, 26.6% was recycled in plant processes. We will endeavor to manage our water resources by continuing this effort, with the goal of "maintaining our current recycling rate."

FY	(x 1,000 m ³ /year)					
	2013	2016	2017	2018	2019	2020
Industrial water	14,734	13,917	13,667	14,790	14,309	13,193
Ground water	234	354	393	313	408	259
Tap water	167	176	200	172	171	169
Total Water Consumption	15,134	14,447	14,259	15,275	14,888	13,620
Usage of recycling water	4,496	4,193	4,250	4,481	4,210	3,624
Recycling rate (%)	29.7	29.0	29.8	29.3	28.3	26.6

*1 Groundwater is not used at the Yokkaichi and Chiba Plants.

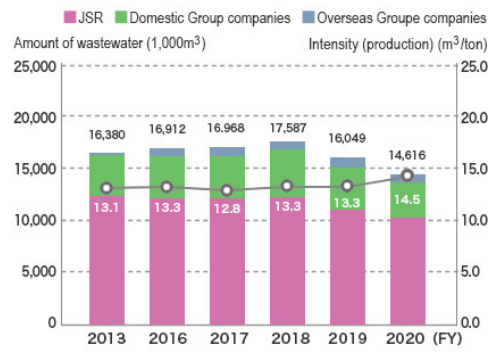
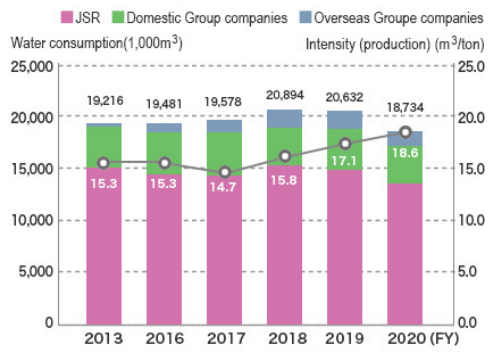
3. JSR Group's Water Consumption and Total Amount of Wastewater

In FY2020, our water consumption stood at 18,734, 000 m³ (a 9% year-on-year decrease) and our total amount wastewater was 14,616,000 m³ (a 9% year-on-year decrease).

We will strive to appropriately manage our water resources with recognition of society's growing attentiveness to them.

Water consumption

Amount of Wastewater





Environment
Waste Reduction

<ul style="list-style-type: none"> ▼ 1. Philosophy
<ul style="list-style-type: none"> ▼ 2. Initiatives to Reduce Industrial Waste <ul style="list-style-type: none"> (1) JSR (2) Logistics: Application of "3R" (Reduce, Reuse, Recycle) to Packaging Materials (3) PCB Management
<ul style="list-style-type: none"> ▼ 3. Industrial Waste Produced by JSR Group

1. Philosophy

In Japan, waste disposal is coming under pressure as a result of waste import regulations in Asian countries. At the same time, demands for a recycling-based society are intensifying globally, as the discharge and emission of plastic waste into the seas are damaging marine ecosystems and environments and becoming a major global environmental issue.

The JSR Group is controlling the amount of waste it produces, sorting waste, and searching for recycling locations with the aim of creating an industry-led recycling-based society.

2. Initiatives to Reduce Industrial Waste

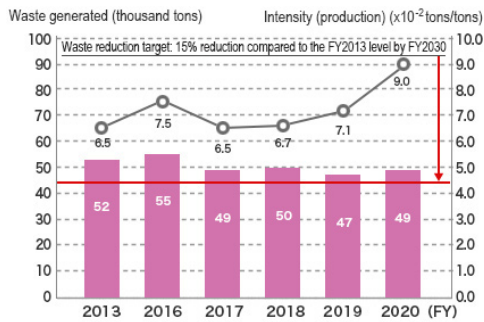
(1) JSR

JSR is taking the following initiatives to create a recycling-based society.

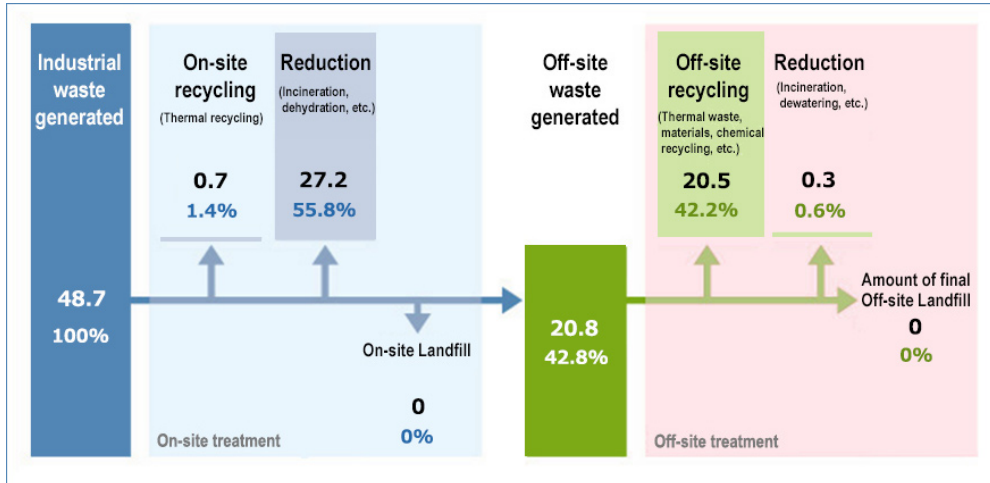
- In the area of generated waste, we set a long-term goal of "reducing waste by 15% in FY2030 compared to the FY2013 level" in FY2018 and are promoting waste reduction and recycling accordingly.
In FY2020, we successfully reduced our generated waste by 6.5% compared to FY2013. Although production volume decreased, intensity increased as compared to the base year, since the processing volume of sludge increased. We will continue taking steps toward our goal.
- As for promoting waste recycling, we are sorting and collecting complex wastes after putting a new recycling center into operation at the Yokkaichi Plant in FY2018. This is in addition to our promotion of recycling in such ways as converting waste into raw materials for cement.
- For the problem of "marine plastic litter," which has become a global environmental issue in recent years, we established "The FY2030 Goals: 1) 100% recycling (including heat recovery), and 2) 60% recycling (not including heat recovery)" as long-term targets in FY2019. We took this step to further accelerate our recycling of waste plastics in response to the Japanese government's Plastic Resource Recycling Strategy.
We will also strive to make a social contribution by, for example, raising awareness of the plastics problem through in-house seminars and explanatory briefings, promoting "3R"-based activities in daily life, and participating in coastal cleanups.
Moreover, we became a participant of the Japan Initiative for Marine Environment (JaIME) as a founding member in FY2018.
- And for the amount of waste we send to final off-site landfills, we have set "zero emissions"^{*1} as a goal since FY2000 and taken continuous steps to achieve it since FY2003.

^{*1} JSR's definition of "zero emissions": When the volume of final off-site waste buried at third-party landfills is less than 0.1% of the volume of waste generated

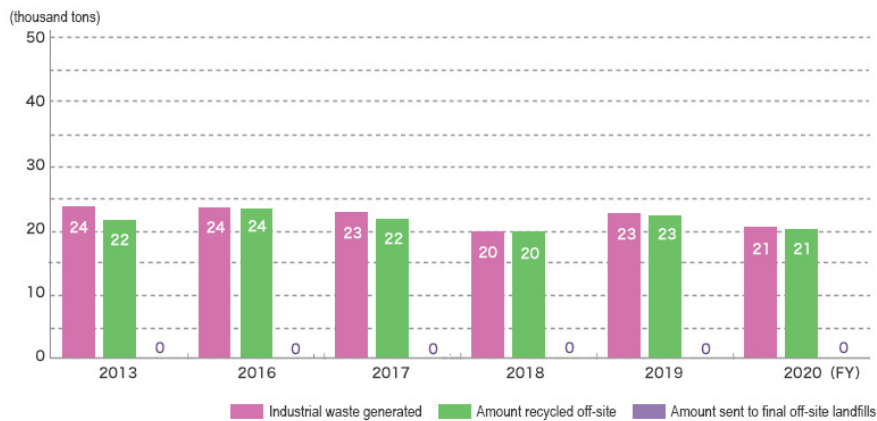
JSR's Waste Generation and FY2030 Reduction Goals



Industrial Waste Processing Flowchart (FY2020 performance in thousand tons/year)



Industrial Waste Generated—Amount Recycled Off-Site—Amount Sent to Final Off-Site Landfills



Waste plastics recycling by JSR and domestic Group companies (FY2020)

The FY2020 waste plastics recycling rate (including heat recovery) was 95% for JSR and 84% for domestic Group companies. We will continue moving forward with approaches.

At the same time, our recycling rate (not including heat recovery) is low as compared to our target values as of the current point in time, and we will advance activities to further raise our recycling rates in order to achieve our targets.

	Waste plastics			
	Amount generated (thousand tons)	Amount recycled (thousand tons)	Recycling rate (including heat recovery) (%)	Recycling rate (excluding heat recovery) (%)
JSR	1.1	1.0	95	10
Domestic Group companies	2.7	2.3	84	43

(2) Logistics: Application of "3R" (Reduce, Reuse, Recycle) to Packaging Materials

JSR has always been serious about environmental measures in its logistics. Therefore, we promote "3R" (Reduce, Reuse, Recycle) to effectively utilize waste-free packaging materials and packaging containers.

Reduce: Reducing the weight of steel box pallets used as packing containers for synthetic rubber and also reducing the amount of waste generated by reviewing waste standards and the weight of external cardboard boxes (two-tier construction to single-tier).

Reuse: Raising reuse rates by reusing intermediate product containers and preventing the breakage of packaging materials for linked use with customers' cooperation.

Recycle: Promoting a switchover to recyclable materials when selecting packaging materials.

JSR will actively engage in the above 3R activities for packing materials to promote recycling and effective use of resources.

* Packaging materials for linked use: Packaging materials that can be returned by or collected from the customer for reuse

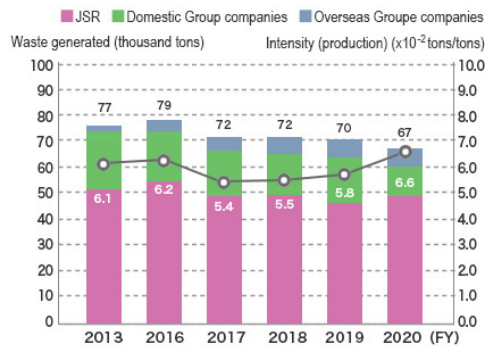
(3) PCB Management

At JSR, electric facilities using high-concentration PCB (converters, capacitors, etc.) completed detoxification treatment. JSR also manages products using high-concentration PCB (stabilizers, contaminants, etc.) and low-concentration PCB waste in an appropriate manner in accordance with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes in Japan. We will also systematically carry out detoxification treatment in accordance with treatment deadlines.

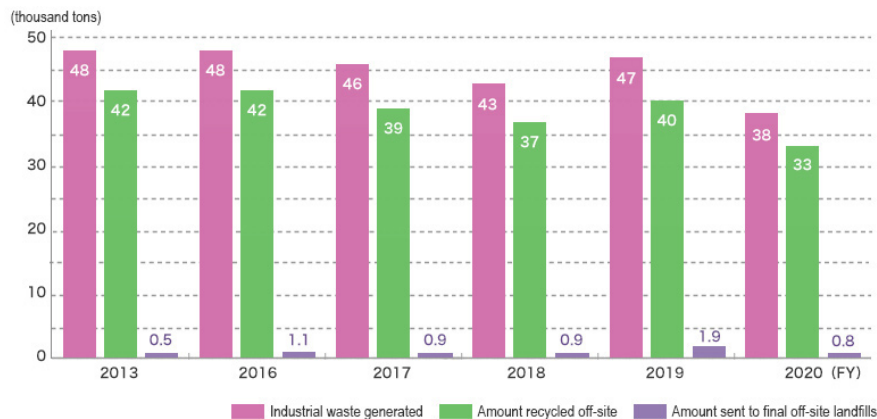
3. Industrial Waste Produced by JSR Group

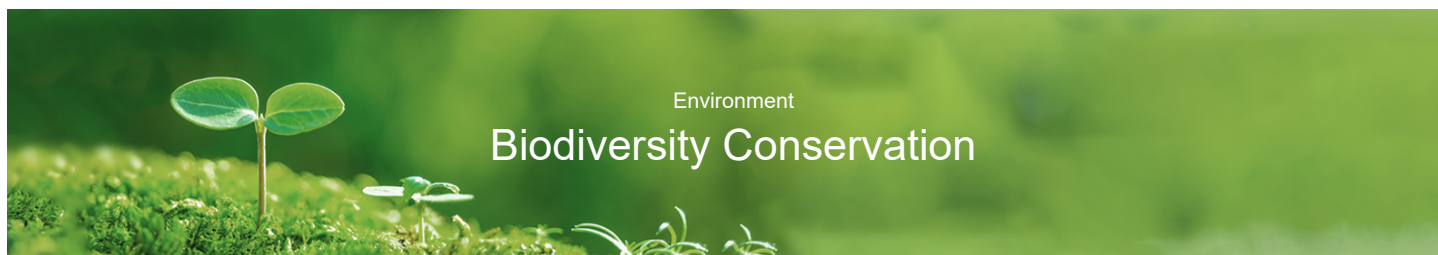
In FY2020, we generated 67,000 tons of waste globally, an amount that was 4% lower than the previous year, and our recycling rate was 87%. We will promote activities that take a long-term perspective on the global side of our business as well.

JSR Group's Waste Generation



Industrial Waste Generated—Amount Recycled Off-Site—Amount Sent to Final Off-Site Landfills





<ul style="list-style-type: none"> ▼ 1. JSR Group Biodiversity Policies
<ul style="list-style-type: none"> ▼ 2. Activity Progress Status

1. JSR Group Biodiversity Policies

The JSR Group formed biodiversity policies in FY2012 based on issues identified through conservation activities conducted in the past. We are currently promoting various activities in accordance with these policies.

To contribute to the establishment of a sustainable society, the JSR Group strives to identify how our business activities depend on and impact biodiversity, and to promote efforts in consideration of biodiversity.

- 1) We prioritize biodiversity conservation in procuring naturally-derived raw and processed materials.
- 2) We work to make the green spaces of our business establishments biodiversity-friendly.
- 3) We strive to develop biodiversity-friendly products.
- 4) We emphasize staff engagement and cooperation with local communities.

Policy Formulation Process

Utilizing the JBIB¹ Business and Biodiversity Interrelationship Map, we have clarified how our business activities depend on and impact biodiversity. We have since established JSR Group Biodiversity Policies on the basis of this clarification.

*1 JBIB: Japan Business Initiative for Biodiversity.

2. Activity Progress Status

We investigate the effects that the JSR Group's business activities have on biodiversity based on our Biodiversity Policies. As a result, we have not found any significant negative impacts on biodiversity from the raw materials we procure or our production sites. Moreover, we have confirmed that no JSR Group production sites in Thailand, Indonesia, and Mexico, which are considered to be particularly highly biodiversity-sensitive regions, are located within protected land areas, protected sea areas, or important biodiversity regions². The JSR Group will respect biodiversity and promote conservation activities to the maximum extent possible.

*2 Survey using the Integrated Biodiversity Assessment Tool (IBAT)

> [IBAT-JSR Group Plants](#) PDF

Policy 1 - We prioritize biodiversity conservation in procuring naturally derived raw and processed materials.

1) Investigation to clarify the naturally-derived raw materials that may have an impact on biodiversity.

We discovered that there were no such materials among main raw materials, but there were some such materials in some auxiliary raw materials. We conducted an investigation to determine the impact of these materials. We found no impact at this time. We will continue to conduct similar investigations when using raw materials that may have an impact.

2) Sustainable Paper Usage

While not a main raw material, paper is used for copies, publications, envelopes, and packaging material. As such, the JSR Group is working toward sustainable paper use and has participated in the Consortium for Sustainable Paper Use, which was established to increase the use of sustainable paper in society, since its establishment in 2013.

We promote activities throughout the Group that prioritize the procurement of company envelopes, copy paper, and other materials made primarily from used paper, or paper with FSC or other forest






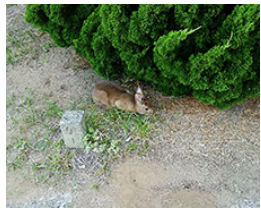
sustainability certifications in accordance with the JSR Group Paper Procurement Guidelines, which were established in FY2013 to promote forest sustainability.


Policy 2 - We work to make the green spaces of our business establishments biodiversity-friendly.

By FY2014, we were able to improve green spaces at all JSR plants and the Tsukuba Research Laboratories based on the Green Space Improvement Plan. This Plan was created with cooperation from experts as well as by using the results of a green space survey conducted in accordance with the JBIB Guidelines for Sustainable Business Sites. Each office is continuing to conduct similar activities independently.

Yokkaichi Plant	
Overview of Activities	
<ul style="list-style-type: none"> • The Yokkaichi Plant is actively using its green spaces as places for communication and environmental education. • It holds biodiversity-themed events for employees and their families. • It maintains and manages biodiversity spaces at the plant site and company housing. 	
FY2020 Activities	
<ul style="list-style-type: none"> • Maintenance and management of green spaces at the plant site and company housing • Events were cancelled due to the COVID-19 pandemic 	
Future Activity Plans	
<ul style="list-style-type: none"> • Maintenance and management of green spaces at the plant site and company housing that have been improved as biodiversity-friendly green spaces • Holding of a nature tour for employees' families to be led by the curator of a local museum (Once or twice a year) → Planned 	

Chiba Plant	
Overview of Activities	
<ul style="list-style-type: none"> • The Chiba Plant has developed the "Ikoi no Hiroba" (Relaxation Garden) that is part of its green spaces into a biodiversity-friendly and uses it as a place for talking about biodiversity. 	
FY2020 Activities	
<ul style="list-style-type: none"> • A priority area of the "Ikoi no Hiroba" was developed, and moss phlox was planted • Weeding, cleaning, and other maintenance and management of green spaces on the plant site 	
Future Activity Plans	
<ul style="list-style-type: none"> • Development of green spaces in priority areas and promotion of their use 	
	  <p>Moss phlox planted in the "Ikoi no Hiroba"</p>

Kashima Plant	
Overview of Activities	
<ul style="list-style-type: none"> • Development of a "pond" and "birdhouse" to recreate the local ecosystem on the plant's grounds. 	
FY2020 Activities	
<ul style="list-style-type: none"> • The biological monitoring survey was cancelled due to the COVID-19 pandemic. • Trees (15) that yield fruit, such as oranges, lemons, kumquats, plums, etc. were planted around the "pond" and in the green buffer zone (March). • JBIB Land Use Score Card evaluations were regularly implemented (March), and we confirmed that biodiversity-friendly green spaces are being maintained with a score of 58 points, the same score as in FY2019 • Regular weeding and cleaning of the plant's grounds were implemented. 	
Future Activity Plans	
<ul style="list-style-type: none"> • Maintenance of developed biodiversity-friendly green spaces and development of unimproved green spaces 	
	  <p>Orange trees were planted in the green buffer zone</p> <p>A hare is observed in the biodiversity promotion area.</p>

<p>Overview of Activities</p> <ul style="list-style-type: none"> • The facility establishes a biodiversity promotion area and practices wildlife-friendly green-space management. 	 <p>Biodiversity promotion area</p>
<p>FY2020 Activities</p> <ul style="list-style-type: none"> • In principle, prohibition of the chemical substances (herbicides) within the area • Creation of soil with fallen leaves and branches (consideration for the cycle of matter) • Regular monitoring of invasive species 	
<p>Future Activity Plans</p> <ul style="list-style-type: none"> • Activities up until now will be continued 	

Policy 3 - We strive to develop biodiversity-friendly products.

We strive to engage in biodiversity-friendly product development by procuring raw materials and developing products that have little environmental impact.

Policy 4 - We emphasize staff engagement and cooperation with local communities.

We hold various events at our offices as part of our business activities.



<ul style="list-style-type: none"> ▼ 1. Protection of Atmospheric, Water, and Soil Environments <ul style="list-style-type: none"> (1) Protection of the Atmospheric Environment (2) Protection of Water Environments (3) Protection of Soil Environments
<ul style="list-style-type: none"> ▼ 2. Measures Targeting PRTR Substances
<ul style="list-style-type: none"> ▼ 3. Asbestos Measures
<ul style="list-style-type: none"> ▼ 4. Improving the Local Environment
<ul style="list-style-type: none"> ▼ 5. Investments in Environmental and Safety Equipment

1. Protection of Atmospheric, Water, and Soil Environments

JSR endeavors to protect the environment by complying with laws such as the Air Pollution Control Act in Japan, Water Pollution Prevention Act in Japan, and Soil Contamination Countermeasures Act in Japan and thereby avoid polluting the air, water or soil (including groundwater).

(1) Protection of the Atmospheric Environment

1) Initiatives to reduce emissions of sulfur oxides (SOx) and nitrogen oxides (NOx)

JSR keeps its emissions below regulatory values by implementing various measures, including those described below.

- Installation of flue gas desulfurization equipment (Yokkaichi Plant: in-house power generation)
- Fuel conversion (from heavy oil to public utility gas) (FY2013, South Kashima Power Plant, Inc.)
- Introduction of denitrification equipment and low-NOx burners

Through full management of the abovementioned measures, we will continue to maintain our current levels.

> [SOx and NOx emissions → JSR Group ESG Data](#) [PDF](#)

2) Initiatives for the Reduction of VOCs*¹ Emissions into the Atmosphere

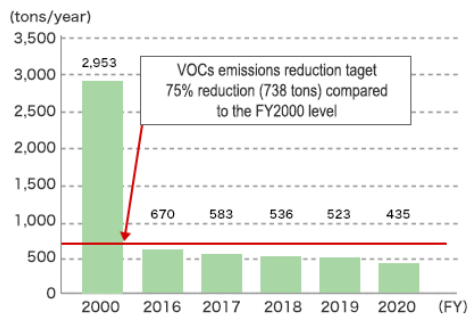
With a voluntary target that is even higher than that of the government and of the Japan Chemical Industry Association (specifically, to reduce emissions of VOCs by 75% compared to the FY2000 level), JSR is making large-scale capital investments and taking other actions to reduce its emissions.

- Installation of regenerative thermal oxidizer (synthetic rubber finishing system flue gas treatment) (FY2006-2009; 5 devices at 3 plants)
- Operational improvements (e.g., enhancing airtightness of release points, using a closed system for chemical sampling)
- Preventing leaks (valves, axle seals, etc.)

As a result, our VOCs emissions in FY2020 were 435 tons (85% reduction as compared to FY2000), and thus we continue to meet our voluntary target. We will maintain our current voluntary target levels through full management of the abovementioned measures.

*1 VOCs: Volatile Organic Compounds.

VOCs emissions



3) Preventing freon leaks

JSR works to control leaks when using Class-1 Specified Equipment, including industrial air conditioners, refrigerators, and freezers, based on the Act on Rational Use and Proper Management of Fluorocarbons in Japan.

To properly promote efforts to control freon leaks, we prepared management standards that expand the scope of management to include all devices that use freon (including those that are not designated products) and are continuing to manage leaks based on them. Our freon leaks in FY2020 amounted to 251 t-CO₂ after CO₂ conversion (reporting to the government is mandatory for leaks of 1,000 t-CO₂ or more).

In addition, we are introducing a system, including at Group companies, to collectively and electronically manage documents in response to a legal revision (requiring, among other things, the storage of more documents) that was executed on April 1, 2020.

We will continue to appropriately manage leaks and link our efforts to control leaks.

(2) Protection of Water Environments

JSR performs rigorous wastewater management at all of its plants, and strives to maintain and improve water quality. JSR has been in full compliance with the 7th Total Pollutant Load Control that was put into operation in April 2012. It should be noted that nitrogen regulations in Mie Prefecture, where our Yokkaichi Plant is located, were strengthened in the 8th Total Pollutant Load Control. We achieved a level that meets the 8th Total Pollutant Load Control's requirements by continuing to take steps to improve water quality. We will continue to strictly monitor water quality and strive to further reduce our impact on water.

➤ [Environmental Load \(COD emissions, total nitrogen emissions, total phosphorus emissions\) → JSR Group ESG](#)

[Data](#) [PDF](#)

(3) Protection of Soil Environments

JSR regularly conducts fixed-point studies of soil and groundwater (observation wells) at each of its plants. As in previous years, no problems were found in FY2020.

Additionally, whenever we plan construction that involves changing the soil's form and nature over an area exceeding 900 m², we voluntarily conduct a soil survey beforehand.

In FY2020, ordinance-based soil fluorine densities exceeding base values were detected in a voluntary survey conducted in the Yokkaichi Plant. We notified the authorities of our discovery of contamination and took appropriate measures in accordance with the law and ordinances.

2. Measures Targeting PRTR^{*2} Substances

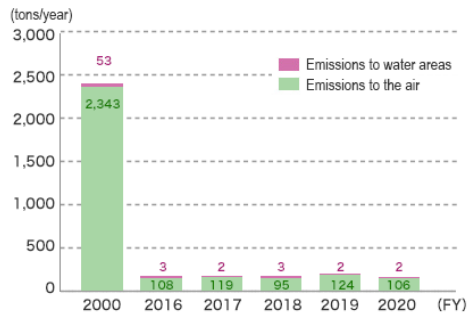
Based on the Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof in Japan, JSR aggregates the amount of designated chemical substances emitted into the environment (atmosphere, water and soil), transferred by manufacturing, or used in the previous year, and notifies the government of Japan of the results. We have systematically implemented a range of measures primarily for substances that are highly hazardous or are emitted in significant amounts and have a great impact on the environment. Such measures include enhancing the airtightness of substance release sources, rendering substances harmless by incineration, and improving manufacturing processes.

As a result, our atmospheric emissions in FY2020 (106 tons) amounted to a 95% reduction as compared to FY2000.

We will maintain current levels through full management of the above-mentioned measures. We will also proceed with preparations in anticipation of future legal revisions (specifically, a reexamination of the substances subject to notification).

*2 PRTR: Pollutant Release and Transfer Registers

➤ [Emissions of main chemical substances → JSR Group ESG Data](#) [PDF](#)



3. Asbestos Measures

JSR conducted a survey of locations sprayed with materials containing asbestos in all of its facilities, including Group companies. For those places that were identified as a result, we undertook removal and enclosure work in accordance with the Ordinance on Prevention of Health Impairment due to Asbestos. This work was completed in FY2006.

In addition, whenever we demolish structures, we take appropriate measures based on the Air Pollution Control Act in Japan and Ordinance on Prevention of Health Impairment due to Asbestos to ensure that no workers or others nearby suffer health problems due to exposure to asbestos. We will also take steps to respond to scheduled revisions of the Air Pollution Control Act in Japan.

4. Improving the Local Environment

JSR values the opinions of people living near its manufacturing and research bases, and considers high transparency of plant operations to be the key to improving the local environment. With this in mind, we strive to improve the local environment by implementing monitoring and tours of environmental equipment at regular intervals.

In FY2006 and FY2007, we installed equipment to incinerate dry synthetic rubber dry exhaust (RTO^{*3}) at the Yokkaichi, Kashima, and Chiba plants to prevent foul odors. In FY2008, a ground flare was installed at the Yokkaichi Plant to prevent noise and flashes. Additionally, we are working to further diminish odors by continuing steady improvement activities while also taking such measures as sealing off sources of foul odors and spraying a special deodorant that we developed with a deodorant manufacturer.

We will continue striving to maintain our basic policy of improving the local environment.

*3 RTO (Regenerative Thermal Oxidizer): A device that combusts and breaks down VOCs into water and CO₂ to make emissions clear



Dried-synthetic rubber waste incinerator (Kashima Plant)



Ground flare (Yokkaichi Plant)

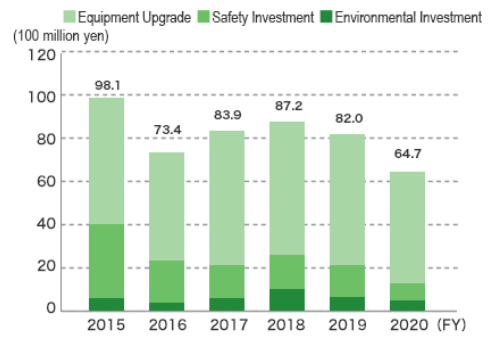
Number of Environmental Complaints (JSR and Domestic Group Companies)

FY		2016	2017	2018	2019	2020
No. of environmental complaints	Odor	0	0	0	0	0
	Noise	0	0	0	0	0
	Vibration	0	0	0	0	0
	Other	0	0	0	0	0

5. Investments in Environmental and Safety Equipment

JSR makes continuous investments in the environment and safety. In FY2020, our investments totaled 6.5 billion yen, combining investments in safety equipment (e.g., for prevention of workplace accidents and replacement of aging equipment) and in environmental facilities. We will continue actively making investments to maintain and

improve the environment, safety, and health in accordance with our medium-term capital investment plan.



* Equipment upgrade and safety investment after FY2016 are budget figures

* Environmental/safety equipment investment figures for FY2019 were corrected.



Environment Environmental Accounting

▼	1. Policy, Scope, and Underlying Assumptions
▼	2. Environmental Protection Costs
▼	3. Economical Effects of Environmental Protection Measures -Substantial Effect-
▼	4. Consolidated Accounting

1. Policy, Scope, and Underlying Assumptions

(1) Policy

JSR introduced environmental accounting in FY1999 with the following two objectives

1. To strive to quantify the amount of resources invested into the environment and implement sound measures for the environment.
2. To publish environmental accounting and increase corporate transparency.

(2) Scope

JSR Corporation - JSR Head Office, Yokkaichi Plant, Chiba Plant, Kashima Plant, Yokkaichi Research Laboratories, Tsukuba Research Laboratories, and Nagoya Branch

(3) Target Period

April 1, 2020 - March 31, 2021

(4) Underlying Assumptions regarding Aggregation and Calculation

1. Calculations are performed in accordance with the Environmental Accounting Guidelines, 2005 edition (Ministry of the Environment of Japan) and environmental guidelines used in the chemical industry (issued by the Japan Chemical Industry Association and the Japan Responsible Care Council).
2. While the calculation of costs was based mainly on actual results, the calculation of some expenses was based on underlying assumptions.
3. Economic effects were substantial and did not include conversions of risk aversion effects or deemed effects into monetary amounts.

2. Environmental Protection Costs

(Unit: one million yen)

Classification	Content of main activities Figures in parentheses express millions of yen.	Investment		Expense	
		FY2019	FY2020	FY2019	FY2020
(1) Business area costs		718	483	4,512	4,109
Breakdown	(1)-1 Pollution prevention costs	544	308	1,935	1,799
	(1)-2	69	21	929	803

	Global environmental protection costs	generation equipment upgrades, etc. Expenses: Routine on-site power generation equipment maintenance, etc.				
	(1)-3 Resource circulation costs	Investments: Sludge dryer system improvement, etc. Expenses: Industrial waste recycling, disposal, etc.	104	155	1,648	1,506
(2)	Upstream/downstream costs		0	0	0	0
(3)	Management activity costs	Expenses: Environmental load monitoring, maintenance and operation of green space, etc.	38	4	522	499
(4)	Research and development costs	Expenses: Development of environmentally friendly products, tests for legal applications, etc.	0	0	1,645	1,481
(5)	Social activity costs	Expenses: Donations to environmental protection organizations, support for ICETT, etc.	0	0	49	45
(6)	Environmental pollution response costs		0	0	0	0
	Total		756	487	6,728	6,134

3. Economical Effects of Environmental Protection Measures -Substantial Effect-

(Unit: million yen)

Effect (for one year)		Benefit	
		FY2019	FY2020
Cost reduction	By saving energy	185	103
	By saving resources	119	39
	By treating waste on-site	985	1,289
Total		1,289	1,431

4. Consolidated Accounting

(Unit: one million yen)

	Investments		Expense		Benefit	
	FY2019	FY2020	FY2019	FY2020	FY2019	FY2020
JSR	756	487	6,728	6,134	1,289	1,431
Domestic Group companies total	81	125	2,066	2,113	187	180
Total	837	612	8,794	8,247	1,476	1,611

* Total of JSR Corporation and 8 JSR Group companies



Environment Chemical Management

<ul style="list-style-type: none"> ▼ 1. Philosophy and Advancement Structure <ul style="list-style-type: none"> (1) Chemical Management Basic Policies (2) Chemical Management Advancement Structure
<ul style="list-style-type: none"> ▼ 2. Voluntary Approaches to Systematically Reduce Toxic Chemicals <ul style="list-style-type: none"> (1) Response to Regulations of Various Countries and Customers' Standards (2) Approaches to Reducing Toxic Substances Across All Chemicals
<ul style="list-style-type: none"> ▼ 3. Compliance with Laws/Regulations and Standards <ul style="list-style-type: none"> (1) Response to Chemical Product-related Domestic Laws and Regulations (2) GHS Compliance and Provision of SDS for All Products (3) Education on Chemical Substance Regulations
<ul style="list-style-type: none"> ▼ 4. Response to Overseas Regulations Concerning Exported Chemicals, etc. <ul style="list-style-type: none"> (1) EU (REACH Regulation compliance) (2) United States (3) China (4) Korea (5) Taiwan
<ul style="list-style-type: none"> ▼ 5. Chemical Management within Supply Chain Management
<ul style="list-style-type: none"> ▼ 6. Industrial and International Measures

1. Philosophy and Advancement Structure

Under its sustainability promotion scheme, the JSR Group's Environment, Safety and Quality Committee promotes measures pertaining to chemical management by formulating promotion items and concrete action plans for such items.

(1) Chemical Management Basic Policies

In light of recent global trends in chemical management, JSR has established the following three policies in its environment and safety management organization by which chemical management is implemented.

1. Instead of hazard-based management^{*1}, we will endeavor to implement risk-based management^{*2}.
2. We will strive to manage our entire supply chain by utilizing a globally standardized method.
3. We will strive to comply with regulations and promote self-motivated initiatives to ensure the safety of our products.

*1 Hazard-based management: Management based solely on the hazardous properties of substances

*2 Risk-based management: Management based on exposure to the hazardous properties of substances

(2) Chemical Management Advancement Structure

Overview of the advancement structure

▶ [Please see the "Responsible Care" 2. RC Advancement Structure](#)

JSR's chemical management structure is advanced by centering on compliance with domestic laws and support of exports by the Corporate Dept., as well as chemical management by local subsidiaries abroad. By capturing trends in environmental changes and tightening of regulations both within and outside of Japan early, JSR has been able to make systematic approaches.

Starting in 2019, we established a dedicated chemical products management division. within the Elastomer Products Div., in which there is particularly significant global customer expansion, to support the rapid tightening of regulations abroad and new legislations in various countries. In the Corporate Div. as well, we launched an overseas legal management organization to broadly collect legal information from overseas, such as from industry organizations, and promptly share

information with all of JSR, including group companies and local subsidiaries.

At JSR, we will continue to support future domestic and international trends and business expansion by constructing systems flexibly.

2. Voluntary Approaches to Systematically Reduce Toxic Chemicals

JSR systematically implements approaches to reduce and eliminate toxic chemicals starting in the product design stage. Target chemical substances that should be managed include chemicals that are listed in laws and regulations of various countries as well as in customers' management standards, of course, and also general chemicals that are not listed in regulations. For all of these chemicals, specialists implement reviews during each step, from raw materials procurement to design, development, trial manufacture, customer evaluation, and commercialization. Doing so allows us to build a mechanism that minimizes the risks that JSR products have on people's health and the environment.

(1) Response to Regulations of Various Countries and Customers' Standards

Substances of which the manufacture and use are prohibited or restricted in the laws of major countries are investigated in detail starting with the raw materials selection stage, and their use, byproducts and mixing in products is strictly managed. The lists that we adhere to are as shown in *1. Among these, 1) to 6) are those for which use in JSR materials/products is prohibited. Those in 7) to 15) are those for which risks are evaluated by intended use when reviews are conducted in the development stage, and for which the possibility of use and necessity of review of alternative substances are confirmed.

In recent years, regulatory laws on chemicals have been legislated/amended in various countries across the world. As such, JSR confirms the regulated substances in applicable countries and checks their usage restrictions in a framework for reviewing commercialization, in response to expansion of countries to which our products are exported.

* 1 List of major chemical substance regulations subject to survey

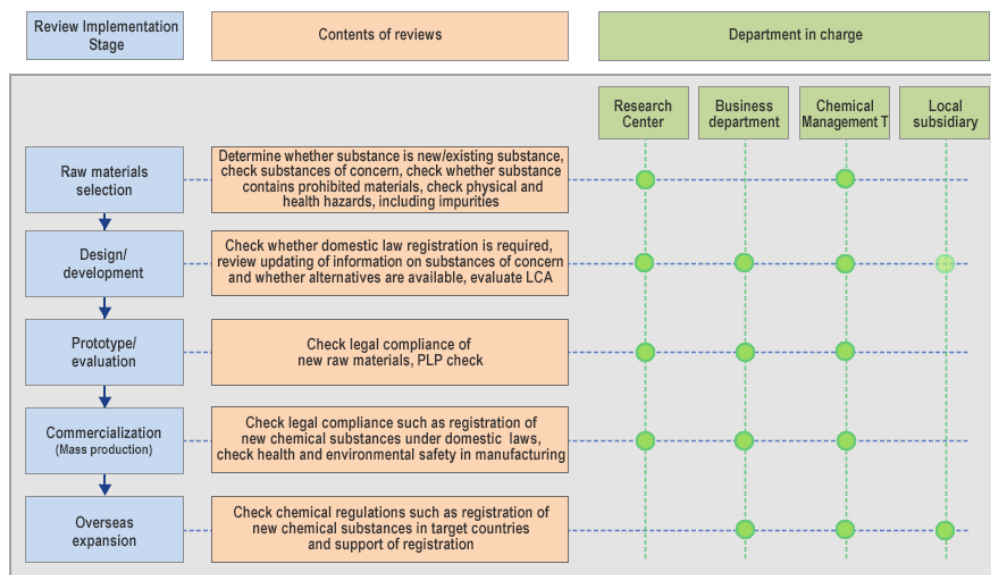
- 1) (Japan) Act on the Regulation of Manufacture and Evaluation of Chemical Substances Class I Specified Chemical Substances
- 2) (Japan) Article 55 of Industrial Safety and Health Act and Article 16 of Enforcement Order of the Industrial Safety and Health Act (Harmful Substances, etc., Prohibited for Manufacturing, etc.)
- 3) (Japan) Article 2 of Act on Special Measures against Dioxins
- 4) (Japan) "Specified Poisonous Substances" as specified in the Poisonous and Deleterious Substances Control Act and Cabinet Order for the Designation of the Poisonous and Deleterious Substances
- 5) (UN) Annexes A, B, and C of Stockholm Convention on POPs
- 6) (US) Toxic Substances Control Act (TSCA) Prohibited or Restricted Substances in Section 6
- 7) (Japan) Act on the Regulation of Manufacture and Evaluation of Chemical Substances Class II Specified Chemical Substances and Monitoring Chemical Substances
- 8) (EU) ELV Directive
- 9) (EU) RoHS Directive Annex II
- 10) (EU) POPs Regulation Annex I
- 11) (EU) REACH Regulation Candidate List of SVHC for Authorization and Annex XIV (Authorisation List)
- 12) (EU) REACH Regulation Annex XVII (Restricted Substances)
- 13) (EU) Medical Devices Regulation (MDR) Annex I 10.4 Chemical Substances
- 14) Global Automotive Declarable Substance List (GADSL)
- 15) IEC 62474 DB Declarable substance groups and declarable substances

(2) Approaches to Reducing Toxic Substances Across All Chemicals

Even for chemical substances not regulated by law, JSR implements verifications of toxicity during reviews, such as during the raw materials selection stage, design stage and prototype stage, regardless of whether it is an existing chemical substance or new chemical substance. In cases where it is judged as being necessary, JSR also establishes measures such as limiting use. In recent years in particular, JSR has been implementing investigations and analyses of substance information, safety information and country registration information for impurities found in existing chemical substances in the raw materials selection stage. This is part of an effort to strengthen checks to make sure that raw materials containing harmful substances and deleterious substances are not used erroneously.

For substances where there are concerns regarding continuity of future use due to the chemical structure of the substance or trends in risk evaluations by country, our Chemical Products Management Dept. regularly gathers information and makes the business departments and R&D Dept. aware that such substances are substances of concern for which substitution and disuse should be examined starting in the design stage. Their elimination is reviewed in reviews leading up to commercialization. (See diagram below)

Scheme for Confirming/Removing Chemicals of Concern/Toxic Chemicals Applied to All Chemical Substances Starting in the Design Stage



Note: This diagram features only contents of support related to chemical products. In each review, however, quality, specifications, manufacturing techniques, etc. are also checked simultaneously.
 "Chemical Management T" under "Department in charge" represents the Chemical management Team in the Environment Dept. and the Chemical Management Team in Technology Management Dept., Elastomer Products.

3. Compliance

(1) Response to Chemical Product-related Domestic Laws and Regulations

In 2017, the Chemical Substances Control Act in Japan^{*3} was amended, and the revised portion of this Act which is concerned with the confirmation system used for low volume new chemical substances came into effect in 2019. With regard to the new requirements introduced by the revisions, e.g., that use certificates be submitted for each substance, JSR took steps to ensure that there have been no problems with any of our applications since immediately after the revisions have gone into effect. In addition, we have made advance preparations and are systematically undertaking measures aligning with the amendment of the Law concerning Pollutant Release and Transfer Register in Japan^{*4}, and to support expansion of substances targeted for management as specified in the Industrial Safety and Health Act in Japan, which are anticipated to take effect in 2022 or 2023.

*3 Act on the Regulation of Manufacture and Evaluation of Chemical Substances in Japan

*4 Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof in Japan

(2) GHS Compliance and Provision of SDS for All Products

1) Provision of SDS^{*5} for All Products

JSR has voluntarily adopted a policy of providing customers with environmental and safety information by preparing SDS not only for products subject to legal obligations and products containing hazardous substances, but for all products which contain polymers. All SDS prepared by JSR are in compliance with JIS Z 7253, the Industrial Safety and Health Act in Japan, the Law concerning Pollutant Release and Transfer Register in Japan, and the Poisonous and Deleterious Substances Control Act in Japan.

Furthermore, in order to provide customers with SDS that contain the most accurate information possible about each product, we were early adopters of an SDS electronic data management system, which we have operated since its creation in 2002. This system includes user management, chemical substance database management, creation support, and publication (revision) history, and it allows us to accurately and quickly provide environmental and safety information related to JSR products.

*5 Safety Data Sheet: Documentation listing the names, respective hazards and toxicities, etc., of substances contained in chemical products in order to ensure their safe handling

2) GHS Compliance

GHS^{*6} is as an international standard for (a) classification of chemical products according to hazard and toxicity; (b) labeling on product packaging and containers; and (c) documentation and provision of details in the SDS.

In Japan, the Industrial Safety and Health Act and the Law concerning Pollutant Release and Transfer Register stipulate mandatory application of GHS to the labels and SDS of products containing GHS-designated chemical substances, with GHS classification stipulated under JIS Z 7252 and SDS and other communicated information stipulated under JIS Z 7253. At JSR, we perform GHS-based hazard and toxicity classification and create appropriate labels, as well as provide SDS, for all of our domestic products that contain applicable substances. We will also strive to ensure our compliance with laws concerning this matter that are being enacted in other countries.

(3) Education on Chemical Substance Regulations

JSR provides in-house training on chemical substance regulations in Japan and abroad. In FY2020, we held domestic law seminars on new chemical substance registration and the amended Chemical Substances Control Act in Japan, and we held foreign law seminars on the substance registration systems used in China, Korea and Taiwan. These seminars were held at the head office and business establishments, and Group companies were also invited. A total of 71 people participated.

4. Response to Overseas Regulations Concerning Exported Chemicals, etc.

Countries around the world have been strengthening their chemical products laws and regulations in advance of 2020, as this was the target year for meeting an international goal^{*7}. Different countries have begun introducing new regulations, such as those requiring registration of existing chemical substances, following the EU's enactment of the REACH Regulation in 2007, and JSR has been responding to each of these without omission in a manner that corresponds to business content and characteristics and local subsidiary systems. The legal and regulatory responses being undertaken by JSR for major production and import/export countries are detailed below; however, in addition to these, JSR is also ensuring compliance with the chemical product-related laws and regulations of numerous other countries, including those in ASEAN.

*7 WSSD 2020 Goal (long-term goal for chemical substances management that was adopted by the 2002 World Summit on Sustainable Development): Minimization of significant adverse effects on human health and the environment by 2020

(1) EU (REACH Regulation compliance)

The REACH^{*8} Regulation was enacted by the EU in June 2007. Under REACH, all chemical products whose total production or import volume within the EU is one ton or more must register safety testing results and other data for the chemical substances contained in them, regardless of whether they are new or existing substances.

In order to ensure there is no disruption to our EU product production or import, we not only regularly check whether or not the substances JSR utilizes require registration, we also prepare for likely usage restrictions arising from future substance evaluations by sharing information with development departments and taking other steps to anticipate risk once evaluations commence.

In response to registration in Britain, which officially withdrew from the EU at the end of 2020, JSR has completed the necessary measures, such as designating the 'Only Representative' under UK REACH and preparing for the 'grandfathering' process.

*8 Registration, Evaluation, Authorisation and Restriction of Chemicals

(2) United States

In the United States, new chemical substance reporting is overseen by the Environmental Protection Agency under the Toxic Substances Control Act (TSCA) and other related federal laws and regulations. JSR follows all applicable legal procedures with regard to the manufacture and importation within the United States of substances not included on the list of existing chemical substances. Also, in response to the amended TSCA which went into effect in 2016, we work in conjunction with our local subsidiaries to flexibly respond to the new legal requirements, as well as promote responsiveness to regulatory trends accompanying the start of risk assessment.

(3) China

In China, reporting of new chemical substances is governed by the Measures for Environmental Management of New Chemical Substances, which was enacted in 2010. Since the establishment of this law, JSR has followed all applicable legal procedures with regard to the importation within China of substances not included on the "Inventory of Existing Chemical Substances in China." An amended version of this law went into effect from January 2021, and we are working to ensure that there will not be any new chemical substance-related omissions in the future, as based on this amended law.

(4) Korea

In Korea, reporting of new chemical substances is governed by the Korean REACH^{*9} Act and OSHA^{*10} Act. JSR anticipates and follows all applicable legal procedures with regard to the manufacture and importation within Korea of substances not included on the list of existing chemical substances. The Korean REACH Act underwent major revisions in 2019, and, as a result, it is now required that existing chemical substances produced or imported within Korea in quantities of one ton or more must be registered. This pre-reporting in the preliminary stage was completed through coordination between JSR's business departments and local subsidiaries. We will systematically support future registrations as well.

*9 Act on Registration and Evaluation of Chemical Substances

*10 Occupational Safety and Health Act

(5) Taiwan

In Taiwan, a registration system was introduced based on the Toxic Chemical Substances Control Act^{*11} enacted in 2014. JSR follows all applicable legal procedures established in line with this new chemical substance registration system. Also, as part of efforts to update its existing chemical substances list, Taiwan has instituted "Existing Chemical Substance Nomination," with the first designated target substances registration taking place in 2019. JSR's compliance efforts have been primarily handled by our Taiwan subsidiary while working within a compliance framework appropriate to each business.

*11 (old) "Toxic Chemical Substances Control Act." Amended in January 2019 to expand the scope of controlled chemical substances; the name was also changed to "Toxic and Concerned Chemical Substances Control Act" in order to reflect this expansion.

5. Chemical Management within Supply Chain Management

At JSR, we practice chemical management simultaneously with CSR procurement and green procurement/green purchasing as part of our supply chain management. In particular, from the standpoint of toxic chemicals management, we have introduced chemSHERPA as part of our green procurement practices, as it is the industry standard format for communicating toxic substances information, and this has helped ensure that we are able to smoothly and reliably relay information to suppliers and in-house handling departments, as well as to customers. Please refer to the following links for more information.

- > [CSR/Sustainable Procurement](#)
- > [Green Procurement](#)
- > [Green Purchasing](#)

6. Industrial and International Measures

JSR is a member of the Japan Chemical Industry Association (JCIA) and contributes to its activities. JSR's contribution includes participating in JCIA's working groups, promoting activities of its Long-range Research Initiative (LRI)^{*12} as a voluntary effort by the chemical industry, and providing a part of research funding.

*12 LRI (Long-range Research Initiative):

The Long-range Research Initiative (LRI) is a long-term, international initiative supporting research into chemical substances that have an impact on the environment, safety and health. It was begun as a voluntary global research grant program initiative of the International Council of Chemical Associations (ICCA), and it is currently being advanced through the cooperative efforts of the chemical industries associations of Japan, the United States, and the EU. In Japan, the Japan Chemical Industry Association (JCIA) is pursuing research into the following five topics: (1) development and evaluation of the new risk assessment method/development of methods for simple exposure evaluation and alternatives to using laboratory animals; (2) study on the safety of new chemical substances including nano materials; (3) study on the effects of chemical substances on children, the elderly, and gene disorders; (4) evaluation of the impact on ecosystems and the environment; and (5) other issues that require an emergency response.



▼ Message from the President
▼ 1. Policy, Management System and Advancement Structure
▼ 2. Targets and Planning
▼ 3. Promotion of Risk Assessment (Security and Accident Prevention)
▼ 4. Compliance Confirmation and Certification
▼ 5. Education
▼ 6. Communication with Local Communities and Society
▼ 7. Activity Record
▼ 8. Handling of Emergency Situations (Facility Accident Incidence and Analysis)
▼ 9. Inspection and Monitoring

Message from the President

Each member of top management within JSR Group works personally to ensure that employees throughout the Group understand and share the Group's mindset towards security, accident prevention and occupational health and safety, based on the Group's Philosophy and Course of Action for Occupational Health and Safety and Policy for Security Management.



As the head of a chemicals manufacturing company, what is undeniably most important is safe and stable operations at our plants. Without this, society would not hold up, and we would not continue to be in existence.

Safety is the basis for business continuity, and is an investment for our company to grow. Safety is adopted as an important topic in management, and providing safety to the local society and developing our company into one where JSR Group employees and everyone working at our affiliate companies are happy to work and maintain the status at are my responsibilities. My aim is to ensure that JSR continues to become a sustainable company trusted by society.

Top management is making approaches toward developing a safety infrastructure, fermenting safety culture, improving security to support organizational safety, and building human resources who are well-versed in safety. This refers to, for example, participating in safety audits at business sites, directly listening to reports on safety approaches and indicators at business sites, thinking collectively about challenges, and resolving such challenges. In one example, after the audit last year, a department dedicated to safety was established at the Tsukuba Research Laboratories. We also believe that it is important to, on occasion, continue communicating messages about safety being the backbone of our business.

During the COVID-19 pandemic, the working pattern of employees changed. What remained unchanged, however, is ensuring safety at our plants. While there has been less contact between people, it is necessary to realize efficient and effective safety/security activities, and JSR Group as a whole aims to continuously ensure the necessary resources for strengthening our facilities and to achieve zero accidents and zero disasters.

President and COO
Nobuo Kawahashi

1. Policy, Management System and Advancement Structure

(1) Security and Accident Prevention Measures, Policy

JSR's security and accident prevention measures treat security and accident prevention as integrally related to health and safety; thus, activities which emphasize the elements of both shared safety culture and safety infrastructure are promoted.

Philosophy and Courses of Action for Occupational Health and Safety

JSR has established a "Course of Action for the Philosophy for Occupational Health and Safety" which presents specific actions demanded of the company and each of its employees. It is based on the "Philosophy for Occupational Health and Safety" that is spelled out in the "Top Commitment" issued by JSR's top management and which serves as the basis for creating workplaces where everyone can work "healthily," "safely," and "with peace of mind."

Philosophy for Occupational Health and Safety

At JSR Corporation, safety is **our highest priority**, and **the foundation of all of our activities**.

Accordingly, we will create safe worksites and strive to maintain physical and mental health, with the goal of ensuring workers happily take it for granted that they will return home safely at the end of each workday.



Courses of Action of the Philosophy for Occupational Health and Safety

1. No matter the situation, we will act with safety foremost in mind.
2. We will comply with established rules and never fail to act in accordance with safety basics.
3. We will maintain safety by identifying and eliminating both actual and potential hazards.
4. We will strive to create comfortable work environments and promote physical and mental health.
5. Through communication and ingenuity, we will aim to achieve 100% employee participation in all safety activities.



Policy for Security Management

JSR establishes a "Policy for Security Management" that presents the company's aim to be an accident-free organization, one in which all employees practice autonomous and proactive safety activities by accepting the "Philosophy for Occupational Health and Safety" and "Course of Action for the Philosophy for Occupational Health and Safety."

Policy for Security Management

(1) Extremely Safe Behavior

The Philosophy for Occupational Health and Safety has penetrated through the organization, the Course of Action are established as applying to everyone, and safety competency is improving through independent safety activities.

(2) Enhanced Human Resources and Organizational Strength

High personal skills, organizational ability, and a healthy organizational culture are being maintained with the establishment and execution of the education and training programs needed for organizational management.

(3) Optimal Risk Management and Security Measures

Security measures corresponding to risk importance are being efficiently and effectively implemented using new technologies.



(2) Safety Management System

JSR has developed and operates a "Safety Management System" that establishes regulations and procedures concerning security, accident prevention and occupational health and safety, all of which are based upon the "Security Management Manual" and "Occupational Health and Safety Manual / Health and Safety Manual" created in accordance with JSR's security management regulations.

Internal audits are conducted within JSR's business establishments to confirm the effectiveness of this management system. Additionally, an auditing team led by the president conducts annual Headquarters Environment and Safety Audits in plants and laboratories, and the heads of these plants and laboratories conduct annual management reviews, to verify the effectiveness of each site's health-and-safety and security-management activities according to the management system.

(3) Advancement Structure

Activity policies and action plans related to the JSR Group's occupational health and safety, security and accident prevention, and other matters are deliberated and formulated by the Environmental Safety and Quality Committee, which is chaired by the officer in charge of environmental and safety affairs. The Committee also oversees the results of those activities. Please refer to the following link for more information about the Environmental Safety and Quality Committee.

> [Responsible Care "2. RC Advancement Structure"](#)

2. Targets and Planning

(1) Medium-Term Plan for Health & Safety and Security Management

JSR uses a two-sided approach comprised of "safety infrastructure" (equipment, organizations, and mechanisms) and "safety culture" (people and climate) as safety activities at business sites, improving "safety infrastructure" + "safety culture" = "safety competency" to support organizational safety. Towards that end, we have established and put into effect the "JSR Roadmap for Health & Safety and Security Management," which is a medium-term plan for activities which promote the "re-cultivation of safety culture", development of human resources possessing strong safety awareness, and development of safe and secure workplaces with no accidents or disasters.

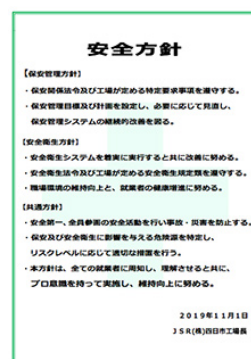
Furthermore, in FY2020, we amended our vision for JSR to include top-to-bottom penetration among all business sites of the "Philosophy for Occupational Health and Safety" and "Policy for Security Management" and implementation of actions and activities based on them; thus, we have updated and are promoting "JSR 2020 Roadmap for Health & Safety and Security Management" containing easier-to-understand activity goals and more concrete activity content. We are conducting activities aimed at becoming a "mutual awareness raising-type organization".

JSR 2020 Roadmap for Health & Safety and Security Management

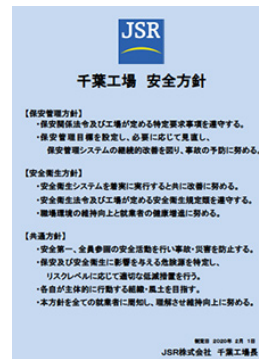
FY (JSR medium-term plan)	2014 - 2016 (JSR2016)	2017 - 2019 (JSR2019)	2020 - 2022	2023 - 2025
Organizational Structure	Reactive-type	Dependent-type	Independent-type	Mutual awareness raising-type
Organization Name	Reactive-type Organization	Dependent-type Organization	Independent-type Organization	Mutual Awareness Raising-type Organization
Organizational State	Personnel perform safety activities according to instinct and without adherence to safety norms	Personnel perform safety activities exactly as stated in the rules/directions given by their supervisor	Personnel understand the guidelines and rules, and safety norms allow for independent decision-making and action when appropriate	Personnel understand the guidelines and rules, and safety norms allow for independent decision-making and action when appropriate, as well as providing each other mutual support and guidance
Top line: Safety Culture	Guidelines and rules are developed, and safety measures are implemented in reaction to past accidents	Guidelines and rules are known by personnel and revised accident prevention safety measures have started being put into action	Guidelines and rules are known by personnel, and accident prevention safety measures are well understood and entrenched	Guidelines and rules are known by personnel, and safety activities are carried out throughout the organization
Bottom Line: Safety Infrastructure				

(2) Plant Safety Policy

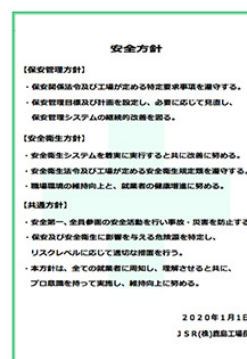
We use the "Philosophy for Occupational Health and Safety", "Course of Action for the Philosophy for Occupational Health and Safety" and "Policy for Security Management" as the basis for establishing safety policies at each JSR plant that are matched to the individual characteristics of each plant in terms of its organizational makeup, workplace environments, and other traits.



Safety Policy for the JSR Yokkaichi Plant



Safety Policy for the JSR Chiba Plant



Safety Policy for the JSR Kashima Plant

(3) Activity Targets

Based on the "JSR Roadmap for Health & Safety and Security Management," we conducted safety inspections of our plants using HAZOP and other methods to enhance risk management of process accidents, and we implemented

countermeasures to serious/major risks. All of this was carried out with the aim of ensuring “zero facility accidents (i.e., abnormal phenomena stipulated in the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities)” in FY2020.

(4) Action Plans

We establish and implement annual action plans at each JSR business site, based on their individual policies and targets.

< FY2020/FY2021 Activity Policy >

Implementation of focused and progressively intensifying activities which emphasize prioritization and total employee participation

< FY2020/FY2021 Priorities >

- Promote risk management
- Eliminate unsafe behaviors and conditions
- Cultivate safe human resources

3. Promotion of Risk Assessment (Security and Accident Prevention)

Risk management serves as the foundation for process safety and workplace safety, and an important part of risk management is risk assessment (risk identification and evaluation). At JSR, we incorporate HAZOP^{*1} as part of our plant risk assessment protocols, and, when combined with our conventional risk assessment protocols, this ensures the completeness of risk identification in terms of security and accident prevention, as well as workplace safety. While doing so, the identified risks are prioritized according to their potential damage and rate of incidence, and countermeasures for each are developed and introduced into business site planning. Then, while optimizing the judgment criteria and reexamining operational rules, in cases where a new and particularly large risk is identified, countermeasures are introduced on an expedited schedule to quickly mitigate the risk and ensure safety.

^{*1} HAZOP: An acronym for “Hazard and Operability Study.” It is a method of safety assessment used to identify the sources of hazards in processes and operations

4. Compliance Confirmation and Certification

(1) Compliance Confirmation

At every business site within the JSR Group, a department is assigned to handle legal and regulatory management, and it is the responsibility of these departments to identify applicable security management and occupational health and safety-related laws, regulations and ordinances, as well as standards and guidelines established for plants, and to then develop and implement procedures for raising awareness of these laws, etc., among employees and for ensuring ongoing compliance.

Please refer to the following link for more information about compliance confirmation.

> [Responsible Care “4. Disclosure of Legal and Regulatory Violations”](#)

(2) Certification Renewal

The JSR Yokkaichi Plant and Kashima Plant renewed their high-pressure gas certification in FY2020. In FY2021, the Chiba Plant is planning on renewing their certification.

Name of Certification	JSR Business Site	Certification Renewal Date
< High Pressure Gas Safety Act > Accredited (Completion, Safety) Inspection Executor	Yokkaichi Plant	September 2020
	Kashima Plant	March 2021
	Chiba Plant	March 2017
< Fire Service Act > Hazardous materials facility construction modification-related business site certification	Yokkaichi Plant	March 2021
	Kashima Plant	March 2021
	Chiba Plant	June 2017
< Industrial Safety and Health Act > Class-1 pressure vessel operational inspection, target sites for certification of boiler shut down inspection cycle	Yokkaichi Plant	March 2018
	Kashima Plant	January 2017

5. Education

(1) Security and Accident Prevention and Health and Safety Education

At JSR, we use hands-on safety and practical-skills courses in technical education, as well as “miniature plant” training, to improve security management-related knowledge, skills and sensitivity. We also work to improve employees’ knowledge, skills and sensitivity by providing education on health and safety as part of new employee training, mid-career employee training, and leadership training, which is in addition to that legally required under the Industrial Safety and Health Act.

1) Implementation of Risk Assessment Training

At JSR, we facilitate the effectiveness of our risk management by conducting risk assessment training at each of our business sites to improve assessment precision, as well as by checking the validity of our safety measures. To do so, we are implementing the HAZOP qualification certification system. For serious risks that are found in this way, we create risk scenarios which we put to use for disaster prevention and damage mitigation.

2) Promotion of Education and Training Tailored to Workplace Accident-prone Job Ranks

At JSR, we implement hazard awareness skills improvement training at each of our business sites; this training is designed for new and inexperienced young workers, as well as for workers who transferred from other workplaces. For veteran workers, we carry out physical limitations checks, as well as provide each workplace with an exercise regimen (a video created with health insurance union editorial supervision) which is used to promote good health and prevent injury. These education and training activities are also introduced and provided to our Group companies as support for their safety activities.

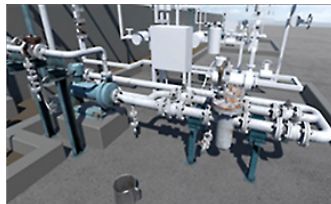
3) Training Center for Skills and Hands-on Training

During FY2020, the JSR Yokkaichi Training Center ran 18 training sessions over 8,793 hours to provide a total of 577 participants (437 from JSR and 140 from Group companies) with education on manufacturing skills common to all plants. Additionally, 19 “miniature plant” training sessions were held at the same training center over 1,232 hours and were attended by 119 employees (92 from JSR and 27 from Group companies). On top of this, we complement the Yokkaichi Training Center training with hands-on training conducted at training centers outside of the JSR Group as well. As for the training contents, risk scenario education and risk cognition education for young people were offered as the curriculum.

At JSR, we are incorporating training on operational procedures using an environment simulated with virtual reality (VR). This allows us to simulate “frightening” situations that cannot be experienced in the real world, thereby contributing to greater safety awareness and elimination of unsafe behaviors.



VR simulation training in action



Example of VR screen image

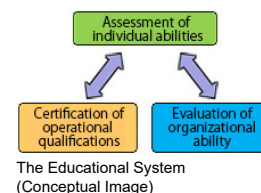
4) Safety Education via e-learning

In order to facilitate greater safety awareness and penetration of the Philosophy for Occupational Health and Safety and Policy for Security Management company-wide, all JSR employees participate in e-learning. In FY2020, the textbook contents were divided into “security and accident prevention” and “occupational health and safety”. To aim for increased understanding, e-learning was held in a creative manner, and 97.6% of JSR employees completed the program. To achieve even greater penetration in the future, we are developing promotion plans based on the results of e-learning, and will implement these on an ongoing basis.

(2) Organization and Education for Stable Plant Operation

1) Assessment of individual and organizational abilities

We have set desired levels for each rank of the job hierarchy and are striving to provide HR education that allows employees to reliably achieve those levels. We are also conducting assessments of individual employees’ ability to operate specific equipment items and processes as well as their comprehensive abilities, and using them to maintain and improve organizational strength.



2) Review of Plant Staff Evaluation Methods

We undertake reviews of our education and training systems and skills evaluation methods in order to ensure ongoing skills improvement of human resources engaged in manufacturing. As part of this, in FY2019, we prepared and began utilizing a common human resources development system comprised of an educational curriculum, qualification certification system and skills evaluation methodology that can be used to train staff in how to carry out tasks at business sites.

6. Communication with Local Communities and Society

JSR is a member of the Japan Chemical Industry Association, Japan Petrochemical Industry Association, Japan Society for Safety Engineering and Japan Safety Competency Center, and we engage in information exchange and information sharing, both in Japan and overseas, via the following responsible care and safety activities.

- Hold information exchange meetings with administrative bodies
- Hold/participate in disaster drills involving the fire department and nearby companies
- Participate alongside nearby companies in cooperative disaster prevention organizations
- Participate in local Disaster Prevention Councils
- Participate in responsible care community dialogs

In addition, our business sites both in Japan and overseas pursue communication with their local communities in order to facilitate mutual improvement in disaster prevention and safety-related awareness and technology.

Receipt of the Responsible Care Award from the Japan Chemical Industry Association

The Japan Chemical Industry Association presented JSR's Chiba and Kashima plants with the Responsible Care Award in recognition of the contributions to responsible care (RC) which their activities have made.

- FY2018 13th RC Award Excellence Award for "JSR Chiba Plant Safety Culture Cultivation Activities" (JSR Chiba Plant)
- FY2019 14th RC Award RC Special Recognition Award for "Exterior Corrosion Countermeasures Project Promotion" (JSR Kashima Plant)

Fire and Disaster Management Agency (FDMA) of the Japanese Government: Presentation of Use Cases Involving Petrochemical Complex Disaster Response-related Advanced Technology

Activities undertaken by the JSR Yokkaichi and Chiba plants were reported as advanced technology use case examples at a meeting of the FDMA of Japan, to investigate advanced technology-driven responses to disasters at petrochemical complexes.

> [FDFA - Effective Drone Utilization and Facilities Information Digitization-driven Disaster Information Support Software Development \(Written by Japanese\)](#) 

7. Activity Record

(1) Preparations for Severe Natural Disasters

Since FY1995, JSR has systemically implemented preparations for large earthquakes. And since FY2006, we have carried out seismic construction focused on high-pressure gas facilities in our plants, based on the results of seismic performance assessments. Also, as part of our commitment to putting "human lives first," we have installed earthquake early-warning systems at all JSR business sites.

Moreover, after the Great East Japan Earthquake prompted us to review the size of assumed earthquakes, we formulated safety measures that included enhancement of seismic resistance and tsunami countermeasures. We are currently implementing those measures systematically. Our work on seismic reinforcement of spherical tank braces was completed in FY2020.

We also re-verified our approaches to severe natural disasters in the Risk Management Manual, and confirmed that there were no human injuries or damage to facilities at business sites located near the seismic centers during enormous natural disasters (i.e., the earthquake off the coast of Fukushima Prefecture that occurred on February 13, 2021 (maximum seismic intensity of 6 upper) as well as the one off the coast of Miyagi Prefecture that occurred on March 20, 2021 (maximum seismic intensity of 5 upper)).

(2) Preparation of a Security Management Manual

Previously, at JSR, the “Security Management Manual” was contained within the “Health and Safety Manual”; however, following a review carried out to make the systems and structures easier to understand, the content was separated into “Security Management Manual” and “Occupational Health and Safety Manual / Health and Safety Manual”, and they have been in effect since FY2020.

The information which is common to both security management and occupational health and safety is contained in both manuals to ensure it is not overlooked.

On May 14, 2020, a death occurred at the Yokkaichi Plant when an employee from an affiliate company was performing work opening a manhole, fell in, and died from lack of oxygen. We are taking this accident very seriously, and as horizontal expansion regarding similar types of accidents, we conducted a comprehensive inspection of the construction safety management system of JSR and JSR Group companies. We are verifying the current state, and will ensure that the system functions more effectively.

(3) Accident Prevention (Introduction of New Technology Towards Security and Accident Prevention Activities)

To encourage safe use of drones in the plant security sector, the Ministry of Economy, Trade and Industry coordinated with the Fire and Disaster Management Agency and the Ministry of Health, Labour and Welfare to compile “Guidelines for Approaches to Safe Operation of Drones in Plants” in March 2019 and “Guidelines for Detailed Setting Methods in Hazardous Areas in Plants (hereinafter “Explosion-proof Guidelines”)” as a method for setting hazardous areas in detail in April 2019. These guidelines have made it possible to expand the scope of use of electronic equipment, etc. in plants without lowering the security level specified by law.

Using these guidelines, JSR is verifying the possibility of photography and inspection from the sky of manufacturing facilities and tanks by drones, and these verifications are being conducted at the Yokkaichi, Chiba and Kashima plants. In the future, drones will also be used in security and accident prevention activities. This is also listed in METI’s “Collection of Use Case Examples of Drones at Plants”.



Test flight of a drone

With leakage accidents on the rise throughout JSR Group, measures against facility corrosion and deterioration are of the utmost priority for each business site. We are therefore checking the soundness of relevant facilities and carrying out repairs in order of priority according to the level of leakage risk. In addition, we aimed at eliminating leaks by reviewing our inspection and construction methods, putting priority on pipe frame contact points in particular, and we investigated the introduction of new technology to strengthen countermeasures against, and prevention of, corrosion due to age-related degradation of facilities and other causes. The results and information obtained have not only been shared with other business sites but have also been externally disclosed as part of our responsible care activities.

(4) Safety Culture Self-assessment

Based on the belief that effective safety relies upon having an effective safety culture and safety infrastructure, JSR is pursuing safety culture innovation with the goal of realizing the vision of the JSR Roadmap for Health & Safety and Security Management (medium-term plan) described above. And as a metric for regular monitoring of the maturation of safety culture, we create and use self-assessment questionnaires. These questionnaires are distributed once every four years, and the results are analyzed to identify potential weaknesses, as well as to facilitate self-review of safety culture maturation and measurement of safety activity results. As part of support for domestic JSR Group companies, we conducted safety culture questionnaire at each Group Company, and have encouraged each to use the questionnaire results in safety activities.

> [4. Targets and Planning \(1\) Medium-Term Plan for Health & Safety and Security Management](#)

(5) Investment in Safety

JSR undertakes ongoing investment in safety. Please refer to the following link for more information about Workplace Accident Prevention, Age-related Equipment and Facilities Degradation and other Equipment and Facility Safety Investment.

> [Environmental Conservation “4. Local Environmental Improvement Initiatives”](#)

8. Handling of Emergency Situations (Facility Accident Incidence and Analysis)

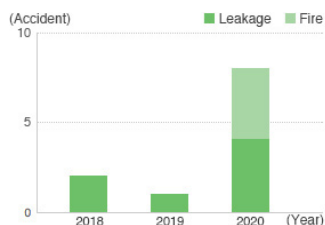
The graph below shows the change over time in facility accident numbers, as reported to the government in compliance with the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities.

In FY2020, there were 5 accidents (1 fire, 4 leaks) at JSR, and 1 accident (leak) at a Group company; although this is the same level as the previous year as a whole, it represents an increased number of accidents at JSR despite a decrease at

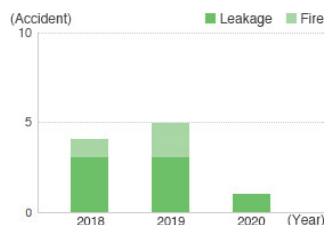
Group companies. The main causes of the accidents were poor equipment management and poor work management; there has been an increasing trend in recent years of disasters caused by construction management. The fire was caused by a rechargeable battery and did not occur in a manufacturing facility. In addition to ongoing implementation of measures to counter age-related facility corrosion as a measure against leakages, we are implementing thorough safety management in construction.

As with information on workplace accidents, information on facility accidents that occurred at JSR is quickly and effectively communicated to all employees via the company intranet. The information is also used in cause analyses, with the results being incorporated into education and training so as to prevent occurrence of similar accidents in the future.

Number of Facility Accidents (JSR)



Number of Facility Accidents (Group Companies)



9. Inspection and Monitoring

(1) Auditing of Certified High Pressure Gas Business Sites

As part of FY2020 auditing, all of JSR's certified business sites were checked to ensure that their security management systems were still in conformance.

Additionally, auditing of the certified high-pressure gas business sites of Group companies was also carried out as a cooperative effort to ensure proper operation of these sites' security management systems.

In FY200, auditing was implemented online due to the COVID-19 pandemic.

FY2020 Auditing of Certified High Pressure Gas Business Site Headquarters	
JSR (business site)	Yokkaichi Plant, Chiba Plant, Kashima Plant
JSR Group Company (business site in Japan)	Japan Butyl

(2) Safety Auditing

An auditing team led by the President conducts annual Headquarters Environment and Safety Audits in plants and laboratories. From FY2015 onward, stimulation of environmental and safety activities has been promoted by changing to an auditing style which incorporates sharing and discussion of the audited departments' issues and, on top of this, by establishing opportunities for dialog between top management and employees where both sides can share their thoughts with one another. In FY2020, auditing was implemented online due to the COVID-19 pandemic.

The FY2020 Headquarters Safety Audit confirmed the conditions at each business site based on RBPS (risk-based process safety), by setting the five KPIs of (1) risk recognition, (2) mutual understanding, (3) risk assessment, (4) human resources development and (5) safety as priority items. As a result, we found an improvement over the previous year in the penetration of the "safety-first" mindset and in the level of business site safety activities practiced. There were many favorable examples related to improved risk recognition levels and approaches towards human resources development, and we also confirmed that activities are being expanded with a focus on the priority areas of safety activities and communication activities (between and within departments). In addition, risk assessment activities are becoming more entrenched, and application of their results to prevention training and to the handling of severe natural disasters is starting to be investigated. However, because variations are still observed between JSR business sites and departments regarding information sharing and matching of assessment levels, improvement efforts are still ongoing. The use of safety KPIs was of a state where mainly lagging indicators were introduced, but we were able to promote understanding and penetration of KPIs towards activities using leading indicators.

* RBPS: System of practical safety management at chemical plants issued by the Center for Chemical Process Safety (CCPS) in the U.S. in 2007.

FY2020 Headquarters Environment and Safety Audit Audited Departments	
JSR (business site)	Yokkaichi Plant, Chiba Plant, Kashima Plant, Tsukuba Laboratory

Cultivating Auditing Personnel

At JSR, we are improving auditing skills through reexamining and evaluating requirements for auditing personnel, such as competence evaluations, and are ensuring that the results they obtain from dialog-based audits can still be effectively used

to improve the audited departments. We are also inviting auditing personnel candidates from various business sites, and are cultivating future auditors while having them participate in audits together with the auditing team.



A dialog session with President Kawahashi (Headquarters/Kashima Plant Web discussion)



On-site inspection (Chiba Plant)



Site inspection (Yokkaichi Plant)



Top management (Yokkaichi Plant, Web audit)

(3) Group Company Safety Auditing

During the safety auditing of Group companies conducted in FY2020, we were able to both confirm the status of activity at each Group company, as well as facilitate the sharing of information. We also introduced productive activities undertaken by JSR. Moving forward, we will continue to provide support for initiatives tailored to the conditions at each Group company. In addition, for our overseas Group companies, we judged that it is difficult to implement audits locally during the COVID-19 pandemic, and so audits were postponed in FY2020.

FY2020 Headquarters Environment and Safety Audit Audited Departments	
JSR Group Company (Japan)	JSR Engineering, Techno-UMG, Emulsion Technology, Japan Butyl, JSR Life Science, Medical & Biological Laboratories, JSR Micro Kyushu

(4) Internal Auditing and Management Review by Plant and Business Site Heads

At least once a year, the head of each plant and business site conducts an internal audit and management review at his or her respective site. The plant or business site head promotes effective safety activities, by performing a meticulous review of how well the plant or business site is acting on the findings and recommendations of the JSR Headquarters Safety Audit, described above, and how well it is acting on the site or department-specific challenges and action plans, and then by providing concrete guidance.



▼ 1. Policy, Management System and Advancement Structure
▼ 2. Targets and Planning
▼ 3. Advancement of Risk Management (Occupational Health and Safety)
▼ 4. Compliance Confirmation and Certification
▼ 5. Education
▼ 6. Communication with Local Communities and Society
▼ 7. Activity Record
▼ 8. Handling of Emergency Situations (Facility Accident Incidence and Analysis)
▼ 9. Inspection and Monitoring

1. Policy, Management System and Advancement Structure

(1) Occupational Health and Safety Policy

Philosophy and Courses of Action for Occupational Health and Safety

JSR has established a "Course of Action for the Philosophy for Occupational Health and Safety" which presents specific actions demanded of the company and each of its employees. It is based on the "Philosophy for Occupational Health and Safety" that is spelled out in the "Top Commitment" issued by JSR's top management and which serves as the basis for creating workplaces where everyone can work "healthily," "safely," and "with peace of mind."

Refer to the link below on details on Philosophy for Occupational Health and Safety as well as the courses of action for Philosophy for Occupational Health and Safety.

> [Security and Accident Prevention "1. Policy, Management System and Advancement Structure"](#)

(2) Safety Management System and Advancement Structure

JSR has developed and operates a "Safety Management System" that establishes regulations and procedures concerning security, accident prevention and occupational health and safety, all of which are based upon the "Security Management Manual" and "Occupational Health and Safety Manual / Health and Safety Manual" created in accordance with JSR's security management regulations.

Internal audits are conducted within JSR's business establishments to confirm the effectiveness of this management system. Additionally, an auditing team led by the president conducts annual Headquarters Environment and Safety Audits in plants and laboratories, and the heads of these plants and laboratories conduct annual management reviews, to verify the effectiveness of each site's health-and-safety and security-management activities according to the management system.

Advancement Structure

Activity policies and action plans related to the JSR Group's occupational health and safety, security and accident prevention, and other matters are deliberated and formulated by the Environmental Safety and Quality Committee, which is chaired by the officer in charge of environmental and safety affairs. This Committee also oversees the results of those activities. Please refer to the following link for more information about the Environmental Safety and Quality Committee.

> [Responsible Care "2. RC Advancement Structure"](#)

2. Targets and Planning

(1) Medium-Term Plan for Health & Safety and Security Management

JSR uses a two-sided approach comprised of “safety infrastructure” (equipment, organizations, and mechanisms) and “safety culture” (people and climate) as safety activities at business sites, improving “safety infrastructure” + “safety culture” = “safety competency” to support organizational safety. Towards that end, we have established and put into effect the “JSR Roadmap for Health & Safety and Security Management,” which is a medium-term plan for activities which promote the “re-cultivation of safety culture” and the development of human resources possessing strong safety awareness, and development of safe and secure workplaces with no accidents or disasters. Please refer to the following link for more information.

> [Security and Accident Prevention “2. Targets and Planning”](#)

(2) Plant Safety Policy

We use the “Philosophy for Occupational Health and Safety”, “Course of Action for the Philosophy for Occupational Health and Safety” and “Policy for Security Management” as the basis for establishing safety policies in each JST plant that are matched to the individual characteristics of each plant in terms of its organizational makeup, workplace environments, and other traits. Please refer to the following link for more information.

> [Security and Accident Prevention “2. Targets and Planning”](#)

(3) Activity Targets

Using the “JSR Roadmap for Health & Safety and Security Management,” we implement activities by establishing action plans comprised of annual targets, annual policies, and priority measures that take into account actual performance and activities of the previous fiscal year. In FY2020, we focused attention on “promoting risk management”, “eradicating unsafe behaviors/conditions” and “cultivating safe human resources”, with the aim of finishing the year with “zero workplace accidents (lost time accidents).” We also strengthened the support we provide to Group companies for the safety activities.

(4) Action Plans

We establish and implement annual action plans at each JSR business site, based on their individual policies and targets. Please refer to the following link for more information.

> [Security and Accident Prevention “2. Targets and Planning”](#)

3. Promotion of Risk Assessment (Occupational Health and Safety)

Risk management serves as the foundation for process safety and workplace safety, and an important part of risk management is risk assessment (risk identification and evaluation). With regard to workplace accidents, JSR identifies risks from a multifaceted and comprehensive manner, such as regarding facilities, work, accident cases, etc., based on MHLW’s “Guidelines for Risk Assessment”. The identified risks are prioritized according to their potential damage and rate of incidence, and countermeasures for each are developed and introduced into business site planning. In cases where a new and particularly large risk is identified, countermeasures are introduced on an expedited schedule to quickly mitigate the risk and ensure safety. Then, while reexamining optimization of judgment standards and operational rules, we make approaches rapidly in cases where new, serious risks are identified, and make efforts to mitigate risks and ensure safety.

4. Compliance Confirmation and Certification

(1) Compliance Confirmation

At every business site within the JSR Group, a department is assigned to handle legal and regulatory management, and it is the responsibility of these departments to identify applicable security management and occupational health and safety-related laws, regulations and ordinances, as well as standards and guidelines established for plants, and to then develop and implement procedures for raising awareness of these laws, etc., among employees and for ensuring ongoing compliance.

Please refer to the following link for more information about compliance confirmation.

> [Responsible Care “5. Disclosure of Legal and Regulatory Violations”](#)

(2) Certification Renewal

Please refer to the following link for more information about certification of JSR's three plants according to the High Pressure Gas Safety Act, Fire Service Act and Labor Standards Act.

> [Security and Accident Prevention "4. Compliance Confirmation and Certification"](#)

5. Education

At JSR, we use hands-on safety and practical-skills courses in technical education, as well as "miniature plant" training, to improve security management-related knowledge, skills and sensitivity. We also work to improve employees' knowledge, skills and sensitivity by providing education on health and safety as part of new employee training, mid-career employee training, and leadership training, which is in addition to that legally required under the Industrial Safety and Health Act. In order to ensure the success of our education and training, we review the education and training structure, organize a safety education-related skill map and develop and maintain a safety education curriculum. Please refer to the following link for more information.

> [Security and Accident Prevention "5. Education"](#)

6. Communication with Local Communities and Society

JSR is a member of the Japan Chemical Industry Association, Japan Petrochemical Industry Association, Japan Society for Safety Engineering and Japan Safety Competency Center, and we engage in information exchange and information sharing, both in Japan and overseas, via the following responsible care and safety activities.

- Hold information exchange meetings with administrative bodies
- Hold/participate in disaster drills involving the fire department and nearby companies
- Participate alongside nearby companies in cooperative disaster prevention organizations
- Participate in local Disaster Prevention Councils
- Participate in responsible care community dialogs

In addition, our business sites both in Japan and overseas pursue communication with their local communities in order to facilitate mutual improvement in disaster prevention and safety-related awareness and technology.

7. Activity Record

Safety Ceremony and Safety and Health Activity Forum

The JSR Group believes that safety is linked to the daily lives of all stakeholders and is also the bedrock of business activity for companies. With this in mind, the JSR Group has made it a goal to achieve "zero facility accidents" and "zero lost time accidents". However, a serious workplace accident which claimed the life of an on-duty employee occurred at the JSR Yokkaichi Plant on July 23, 2014. With a pledge to aim for "zero accidents" and keep the lessons learned from this serious workplace accident alive, and with a promise to continue developing a strong safety culture into the future to protect precious lives, we erected a safety monument in front of the Yokkaichi Plant's main building and also hold a safety ceremony as well as a forum for presenting case examples of safety activities by business sites each year at around the time of the accident.

In FY2020, we held our Safety Ceremony and Safety and Health Activity Forum online, due to the COVID-19 pandemic, on July 21. During the Safety Ceremony, a video message from Director Kawasaki was communicated, and at the Safety and Health Activity Forum, favorable presentation themes were selected from among safety activity cases that were nominated by JSR and each Group company both within and outside of Japan after undergoing a careful review. The presentation below was delivered in the form of slides with audio, and President Kawahashi's comments were streamed as a video. Access to this website was made possible from the JSR Group companies, leading to many website visitors as compared to the past.

Safety Ceremony, Safety and Health Activity Forum Public Website (Partially)

Safety oath



Message from Director Kawasaki



Comments by President Kawahashi



	Presenting Group	Name	Overview
1	JSR Yokkaichi Plant Production Dept.	Improving Safety through Use of Non-Explosion Proof Mobile Electronics in Zone 2 Locations	As there are many of the young generation, with many of them feeling uncertain about business promotion and education, we reviewed the use of a mobile device that can be easily accepted by the young generation towards field operations and education. In cooperation with the Security and Accident Prevention Dept., as well as with METI, FDMA and jurisdictional fire department, the JSR Yokkaichi Plant took the initiative to reexamine danger location categories and realize use of non-explosion-proof machines in the plant.
2	JSR Yokkaichi Plant Production Dept.	Improving Ability of Mid-Level Employees to Respond to Emergencies	As a generation change in the department progresses, what if something happens when the team leader is absent? This is a concern raised by younger employees. By implementing blind training and having employees think of necessary responses on their own, we all recognized the difficulty of making judgments and taking action. Concrete measures were deployed and uncertainties were resolved, through training results, methods for patrolling from the perspective of a team leader, and fostering assistants to team leaders. We recognized as well the importance of communication between operators.
3	JSR Chiba Plant Production Dept.	Reconstructing a Safety Culture through Climate Reform	We determined that the background behind being out of BD moisture specifications was a lack of mutual understanding and knowledge within the section, and are promoting an improved climate within our section. To do so, we decided on the three Articles of communication, and have made efforts towards mutual compromise between managers/subordinates, and to exchange true opinions. (1) Confirmed things that were difficult to express, through a questionnaire (2) Discussions with close generations (3) Praises As a result, we restored a relationship of trust, and the distance between managers and subordinates shrank.
4	JSR Kashima Plant Production Dept.	Small Group Activities Aimed at Eradicating Unsafe Behavior and Improving a Sense of Safety	As the department in charge of the broadest area at KP, the personnel structure has become centered on young people, due to changes in generations, and improvement of a sense a safety has been an issue. In a TOY prevention campaign deployed at KP, our section has gathered TOY examples and conducted risk assessment, and discussed the results of such assessment by comparing them against assessment results by our section chief. By conducting discussions, we are not only aligning evaluation standards—we are also sharing ideas (education on sense of safety).
5	JSR Micro Kyushu	Approaches Toward Health Management	We have specified a health management policy and are promoting health management activities, both with the objective of health promotion among our employees. This is characterized by promoting health, such as by reducing overtime and promoting paid holidays, and introducing an interval system for working hours, in combination with reforming work styles. Our activities have been evaluated, and we were awarded the "Saga Saiko Award" in FY2019 by Saga Prefecture, as a business site with excellent health management.
6	JSR Micro Korea	Achieving 2000 Days of No Accidents through Strengthened Safety Activities	We are promoting JMK safety activities, which is a fusion of the Korean Ministry of Labor's PSM system and JSR's safety system. Since September 5, 2014, we have achieved 2,000 days and counting of no disasters. Thanks to JSR's (1) preliminary safety evaluation, (2) hazard prediction training, (3) excavation of potential hazards (risk assessment) and (4) comprehensive accident

		prevention training, we are promoting a higher level of standards than those in the Korean PSM. We are building an operational system for labor safety, security and accident prevention, and chemical substances management, and connecting this to results.
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Safety Initiatives of Comprehensive Disaster Prevention Councils

Within each plant of JSR and domestic Group companies, a Comprehensive Disaster Prevention Council (normally referred to as "Disaster Prevention Council") is set up with manufacturing partners that carry out construction and various operations in company facilities. The two sides team up to smoothly promote occupational health and safety activities.

Introduction of Disaster Prevention Councils' Safety Activities

- **Council-organized safety education**

Disaster Prevention Councils provide group education to safety instructors of member companies using workplace accident case studies. They also provide hands-on safety education and hazard-prediction training (KYT).

- **Activities timed with National Safety Week**

Disaster Prevention Councils raise safety awareness during National Safety Week by holding safety conferences, presenting safety activity reports prepared by subcommittees and member companies, and presenting awards for safety slogans. They also urge employees to engage in safe behavior by organizing active communication campaigns in the workplace.

- **Special patrols**

Disaster Prevention Councils conduct "special patrols" led by council executives during periodic repair work.

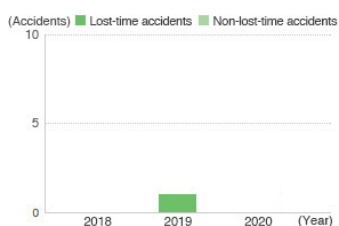
8. Handling of Emergency Situations (Workplace Accident Incidence)

At JSR and JSR Group companies, there is a decreasing trend in terms of both the number of all workplace accidents and the number of lost time accidents. However, on May 14, 2020, there was a fatal accident at the Yokkaichi Plant in which an employee from an affiliate company died while opening a storage tank a part of a legal inspection. We are taking this accident very seriously, through thoroughly enforcing compliance with safety standards in work and striving to prevent reoccurrence. To ensure that all employees of JSR, JSR Group companies and affiliate companies understand and comply with safety standards, we are reinforcing construction management such as by reliably communicating safety information and reexamining confirmation forms. We are working to promote linkage across the JSR Group as a whole and reduce work accidents.

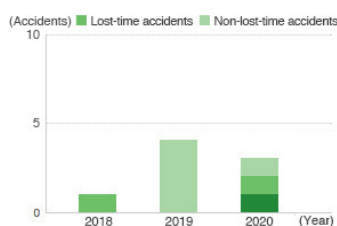
Number of Workplace Accidents in FY2020

		Fatal accidents	Serious workplace accidents	Lost-time accidents	Non-lost time accidents
JSR	Employees	0	0	0	0
	Manufacturing partner employees	1	0	1	1
JSR Group Companies in Japan	Employees	0	0	1	2
	Manufacturing partner employees	0	0	1	2

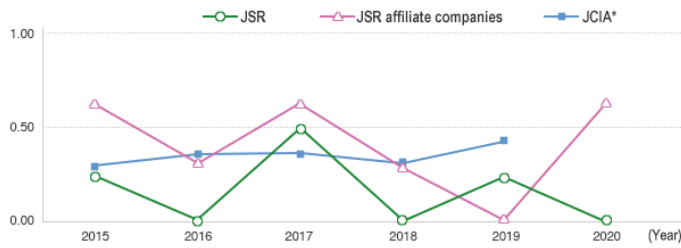
Number of Workplace Accidents (JSR)



Number of Workplace Accidents (Manufacturing Partners of JSR)

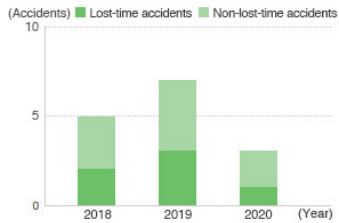


Frequency rate

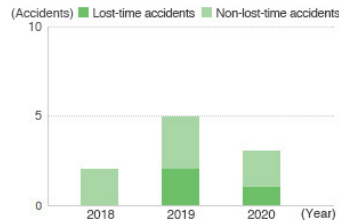


* Source: JCIA FY2021 Industrial Safety and Health Survey (data up to 2019 was recorded)

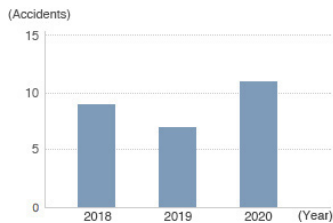
Number of Workplace Accidents (Domestic Group Companies)



Number of Workplace Accidents (Manufacturing Partners of Domestic Group Companies)



Number of Workplace Accidents* (Overseas Group Companies)



* Only accident numbers are listed, as the standards for workplace accident categories differ depending on the country of the accident location.

9. Inspection and Monitoring

JSR uses an auditing team led by the President to conduct annual Headquarters Environment and Safety Audits in plants and laboratories. From FY2015 onward, stimulation of environmental and safety activities has been promoted by changing to an auditing style which incorporates sharing and discussion of the audited departments' issues and, on top of this, by establishing opportunities for dialog between top management and employees where both sides can share their thoughts with one another.

Please refer to the following link for more information.

> [Security and Accident Prevention "9. Inspection and Monitoring"](#)



Society Logistics

- ▼ 1. Policy
- ▼ 2. Safety Initiatives
- ▼ 3. Accidents and other Incidents in JSR Corporation (FY2020)
- ▼ 4. "White Logistics"-Related Initiatives

Cooperation that goes beyond JSR's business establishments to include the entire supply chain is important in maintaining and improving the environment, safety, and quality in logistics. JSR Group makes various efforts to ensure the safe and environment-friendly transport of products.

1. Policy

Each year, JSR executes activities to manage risks and ensure safety after formulating a health and safety promotion plan at each plant based on the Philosophy and Course of Action for Occupational Health and Safety.

We formulate these plans based on actual results and issues from the previous fiscal year from the standpoint of the PDCA cycle and then implement activities with the aim of eliminating logistics and workplace accidents.

> [Philosophy and Course of Action for Occupational Health and Safety, which includes items pertaining to logistics safety.](#)

2. Safety Initiatives

(1) Identification and Improvement of Risks

We strive to improve the safety of our logistics sites by identifying potential sources of logistics/workplace accidents for both people and infrastructure—such as hazardous operations and locations within worksites—and making improvements. One way we do this is through regular patrols by managers.

(2) Cultivating and Spreading Safety Awareness

We provide hazard prediction training (KYT) to raise awareness of potential risks without carelessness or overconfidence, even in routine and familiar tasks, and improve sensitivity to hazard prediction. We also broadly solicit safety slogans from logistics partners to cultivate and instill safety awareness in each worker.

(3) Enhancing Education and Training

We provide preventive education based on a horizontal approach to logistics accidents and workplace accidents that incorporates examples from other companies. We also conduct various drills jointly with our logistics partners that simulate crises, such as large-scale disasters and logistics accidents, to improve our ability to respond to crises and raise safety awareness. Whenever points requiring improvement arise after training, we enhance the quality of our education and training by revising crisis management manuals, incorporating improvements into subsequent training, and the like.

(4) Maintaining Transport Safety and Environmental Standards

JSR outsources the distribution of its products to outside logistics partners. To maintain environmental and safety standards during transport, we have drivers carry a "Yellow Card" imprinted with special measures and telephone numbers in case of emergency. This is in addition to having logistics partners train their drivers on specific safety issues.



Example of a Yellow Card

(5) Reinforcing Health and Safety Collaboration with Logistics Partners

We share logistical challenges concerning quality, safety, and the environment and manage the progress of improvement activities by holding quarterly meetings with logistics partners through our logistics subsidiaries. We also verify, assess, and guide health and safety activities by conducting annual audits of our logistics partners.

3. Accidents and other Incidents in JSR Corporation (FY2020)

Logistics-related workplace accidents: 0

Traffic accidents resulting in injury to others: 0

Traffic accidents resulting in injury to JSR employee: 0

4. “White Logistics”-Related Initiatives

JSR endorses the “White Logistics” Movement being advocated by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT); the Ministry of Economy, Trade and Industry (METI); and the Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan. We submitted a voluntary action declaration for the movement and are currently engaged in the following activities.

The movement seeks to improve productivity and logistics efficiency in truck transportation and create work environments in which female and elderly drivers can work comfortably. In doing so, its goals are to address ever-worsening truck driver shortages, to bring stability to the logistics services needed in daily life and industrial activity, and to contribute to economic growth.

One focus of our efforts under the movement is the diversification of transportation methods to bring about a modal shift toward ships and railroads. We have achieved a high modal shift rate exceeding 80%—reaching 83% in FY2020—and are thus helping reduce carbon dioxide emissions through more efficient logistics. Through activities such as this, we aim to reduce the burden on drivers and reduce environmental impact by achieving a modal shift. We are also taking earnest steps to maintain fair and equitable business relationships with logistics operators while building a supply chain that does a better job of taking the environment and society into account.

> [Click here to learn more about the White Logistics Movement](#) 

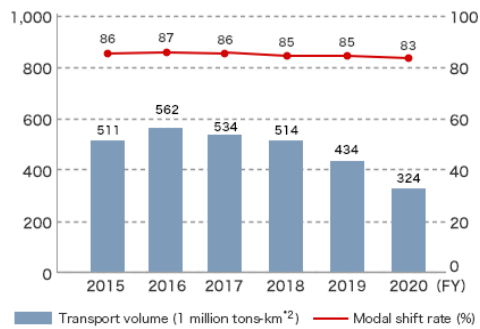
* Written in Japanese

Initiatives undertaken by JSR Corporation

Item	Description
Proposing and cooperating in logistics improvements	Whenever our business partners or logistics operators present proposals to reduce the burden on drivers and workers or streamline logistics, for example, we discuss those proposals with sincerity and proactively offer our own ideas.
Use of pallets, etc.	We aim to reduce drivers' workload and shorten cargo-handling time by using pallets for transportation.
Separation of non-driving tasks	Whenever we are approached by a transportation company about non-transportation tasks performed by drivers, we engage in earnest discussions with the company to resolve the issue. We also proactively reach out to transportation companies and strive to grasp what is happening at the ground level.
Modal shift to ships and railroads	We aim to reduce environmental impacts by promoting a modal shift from truck transportation to ships and railroads.
Use of written transport contracts	We promote the use of transport contracts prepared in documentary form.
Safety measures during cargo handling	When carrying out cargo handling, we put safety first by implementing such measures as clearly indicating safe work procedures and installing scaffolding. We also strive to eliminate workplace accidents and achieve a safe work environment by identifying the

	sources of danger and hazardous operations and constantly conducting educational activities using Kiken Yochi Training (KYT).
Reducing long-distance transportation	We shorten the transport distance per trip and alleviate the workload on drivers in long-distance truck transportation by using ships and railroads and setting up stock points.

Achieving a modal shift in JSR Corporation^{*1}



*1: Transport volumes and modal shift rates for products and raw materials transported and delivered from JSR Corporation's own warehouses and contracted outside warehouses to specified destinations in Japan

*2: Ton-km: [Cargo weight (tons)] x [transport distance (kilometers)]

See ESG Data for CO₂ emissions associated with logistics.

> [ESG Data](#) [PDF](#)



<ul style="list-style-type: none"> ▼ 1. Philosophy and Advancement Structure
<ul style="list-style-type: none"> ▼ 2. Product Safety <ul style="list-style-type: none"> (1) Product Liability Prevention (PLP) Guiding Principles (2) Product Liability Prevention (PLP) Activities

1. Philosophy and Advancement Structure

JSR Group advances measures pertaining to product safety under its Responsible Care Policy. The Group's Environment, Safety and Quality Committee takes the lead in formulating items for promoting product safety as well concrete action plans founded on those items.

> ["Responsible Care" 2. RC Advancement Structure](#)

2. Product Safety

JSR strives to offer quality products and services that both meet customer requirements and ensure user safety based on this product safety policy: "Verify safety at all stages, from raw materials to finished products, protecting the health and property of all individuals involved."

(1) Product Liability Prevention (PLP) Guiding Principles

Maintaining respect for humanity, JSR does business with based on the following PLP Guiding Principles

- Social mission:
The company's social mission is to pursue safety in the products it supplies and to ensure the safety and health of those who use them.
- Customer trust:
Activities that unflinchingly execute PLP and continually supply safe products lead to customer trust.
- Prevention:
The essential point of PLP is to take all possible preventative measures to ensure that product accidents do not occur.
- Company-wide activity:
PLP activities are executed through collaboration among concerned departments and with the combined strength of JSR and JSR Group.

(2) Product Liability Prevention (PLP) Activities

In 1994, JSR enacted its Product Liability Prevention (PLP) Standards to reinforce product safety efforts. Since then, we have taken steps to prevent PLP risk by making revisions to the standards as necessary and establishing regulations for each part of the supply chain; namely, design and development, manufacture, sales, and distribution.

We have expanded our business categories to include the elastomer business (which includes tire materials), the digital solutions business (which includes semiconductor materials and display materials), and the life sciences business. Thus, at the design stage, we focus on reviews as a materials manufacturer that meets the demands of a diverse range of customers with different needs.

At the design and development stages, we work to prevent PLP risk by conducting ordinary design reviews and also preparing a "PLP check sheet." With this PLP check sheet, we have a system whereby we conduct multifaceted safety checks on new products to be introduced to the market that start at the product design stage. A product only goes on the market after it has been approved by the department manager. For us, PLP activities are the basis upon which we grasp the standards our customers demand and raise the reliability of our products. Group companies are currently taking similar steps.

To prevent accidents involving our products, we also strive to improve quality management throughout our supply chains—everything from raw materials procurement to distribution—by communicating with our customers and strengthening our efforts to prevent product accidents, such as by revising our quality management system and updating assessment technologies.

We use safety data sheets (SDS) to provide customers with information on the dangers and toxicities of our projects.

> [Safety Data Sheets \(SDS\)](#)



JSR Group is committed to building a quality management system and quality assurance with the aim of providing customers with products of reliable quality that they can use with peace of mind.

<ul style="list-style-type: none"> ▼ 1. Philosophy and Advancement Structure <ul style="list-style-type: none"> (1) Philosophy (2) Structure
<ul style="list-style-type: none"> ▼ 2. Quality Assurance <ul style="list-style-type: none"> (1) ISO 9001 Certification (2) Global Quality Guidelines (3) "Building in" Quality (4) Quality Improvement (5) Quality Activities Forum (6) Quality Education
<ul style="list-style-type: none"> ▼ 3. Looking Ahead

1. Philosophy and Advancement Structure

1) Philosophy

JSR Group' Corporate Mission is "Materials Innovation - We create value through materials to enrich society, people and the environment." The Group's Management Policies set forth "emphasis on improving customer satisfaction" and "continuous increase in customer satisfaction" as basic policies concerning quality for the entire company. We believe that an important role of JSR Group is to supply innovative materials and excellent products that meet customer needs and contribute to a better society.

(2) Structure

JSR Group's Product Safety & Quality Assurance Department is charged with formulating quality policy and quality assurance promotion plans. The Group does its business based on these plans.

2. Quality Assurance

(1) ISO 9001 Certification

JSR Group supplies customers with chemicals and other diverse products and services. To continuously deliver reliable quality in all of our products and services, we give full attention to quality management each day. We also strive to further improve quality under a management framework that is based on manufacturing and quality management standards (ISO 9001^{*1}).

We acquire ISO 9001 certification at all of our main plants and business establishments (including relevant divisions and indirectly involved departments). Each certified business establishment has a Quality Assurance (QA) Advancement Committee that is led by the plant manager or senior management. This committee examines activities to improve quality levels, measures to prevent quality deficiencies, the development of CS activities,^{*2} and reporting of quality abnormalities. The information the committee collects is stratified and put to use in preventing the recurrence of problems having the same root cause. CS activities receive particular attention. Customer complaints as well as quality issues that did not go so far as to generate complaints are stratified and analyzed, and the results are applied to the prevention of complaints and problems. Constantly grasping and analyzing quality risks are useful in eradicating quality-related complaints and problems. We strive to prevent and stop recurrence and emphasize activities to prevent quality problems through an organization-wide approach. In this way, the process extending from problem discovery to recurrence prevention measures operates as a PDCA cycle.

*1 ISO 9001: An international standard for quality management systems that was issued by the International Organization for Standardization (ISO)

*2 Customer Satisfaction (CS) activities: Activities to gain customers' satisfaction by meeting their expectations, to create a better relationship with customers and build trust with them, and to link that relationship to sales.

ISO 9001-certified plants (as of May 21, 2021)

Japan (10 companies, 17 business establishments)	Certification No.	Date of certification (date of renewal)	Date of expiry
JSR Corporation	-	-	-
Yokkaichi Plant	JQA-0396	February 9, 1994 (February 9, 2019)	February 8, 2022
Chiba Plant	JQA-QMA14571	May 11, 2012 (September 1, 2019)	August 31, 2022
Kashima Plant	JQA-QMA14580	May 18, 2012 (December 8, 2018)	December 7, 2021
JAPAN COLORING CO., LTD.	NQA-16100028A	March 19, 1996 (February 21, 2020)	March 18, 2023
Techno-UMG Co., Ltd.	-	-	-
Yokkaichi Plant	JCQA-0700	May 15, 2000 (May 15, 2021)	May 14, 2024
Ube Plant	JCQA-1508	July 19, 1994 (July 19, 2018)	July 18, 2021
Otake Plant	JCQA-1508	July 19, 1994 (July 19, 2018)	July 18, 2021
Japan Butyl Co., Ltd.	-	-	-
Kawasaki Plant	0105	November 28, 1995 (January 27, 2021)	January 26, 2024
Kashima Plant	0105	November 28, 1995 (January 27, 2021)	January 26, 2024
JSR Life Sciences Corporation	JP13/062551	November 23, 2010 (November 23, 2019)	November 23, 2022
ELASTOMIX Co., Ltd.	-	-	-
Yokkaichi Plant	JCQA-1699	February 24, 1997 (February 24, 2021)	February 23, 2024
Tokyo Plant	JCQA-1699	February 24, 1997 (February 24, 2021)	February 23, 2024
Shiga Plant	JCQA-1699	February 24, 1997 (February 24, 2021)	February 23, 2024
JSR Logistics & Customer Center Co., Ltd.	JQA-0396	February 9, 1994 (February 9, 2019)	February 8, 2022
KRATON JSR ELASTOMERS K.K.	JCQA-0897	April 16, 2001 (April 16, 2019)	April 15, 2022
JSR Micro Kyushu Co., Ltd.	JQA-3163	March 12, 1999 (January 13, 2021)	January 12, 2024
Emulsion Technology, Co., Ltd.	NQA-16050168A	November 30, 1998 (October 21, 2019)	November 29, 2022

Overseas (9 companies, 9 business establishments)	Certification No.	Date of certification (date of renewal)	Date of expiry
ELASTOMIX (THAILAND) CO. LTD. (Thailand)	TH21/14043	June 17, 2011 (April 19, 2021)	April 19, 2024
JSR Micro Korea Co., Ltd. (South Korea)	FM 88265	October 11, 2004 (September 28, 2019)	September 27, 2022
JSR Micro, Inc. (U.S.A.)	10305	April 17, 1998	March 17, 2022

		(March 18, 2019)	
JSR Micro N.V. (Belgium)	BE91/03002	October 1, 2004 (October 12, 2019)	September 30, 2022
ELASTOMIX (FOSHAN) CO., LTD	01 100 1833213	January 28, 2021 (January 27, 2021)	January 26, 2024
Tianjin Kuo Cheng Rubber Industry Co., Ltd. (China)	80117002/2	September 2002 (March 11, 2021)	March 10, 2024
JSR Micro Taiwan Co., Ltd. (Taiwan)	TW18/00169	March 14, 2007 (February 26, 2021)	February 26, 2024
JSR BST Elastomer Co., Ltd. (Thailand)	10264063	June 9, 2014 (June 9, 2020)	June 8, 2023
PT.ELASTOMIX INDONESIA (Indonesia)	2016-1-0181	January 2016 (September 7, 2018)	September 6, 2021

(2) Global Quality Guidelines

As its development, purchasing, production, and sales become more globalized, JSR Group recognizes that its philosophy vis-a-vis quality in the continual pursuit of “Materials Innovation” must be shared throughout the Group, and that any divergence from that philosophy must be prevented. For this reason, we are formulating guidelines for the sharing of basic thinking and mechanisms concerning quality management that JSR Group can rely on (e.g., elimination of differences and variations in thinking concerning quality management, application of shared language).

With these Global Quality Guidelines, we promote the sharing of basic thinking and mechanisms and present examples illustrating quality management methods that are indispensable to manufacturing, the “soul” of our company. The guidelines cover responses to quality abnormalities in design reviews for planning (e.g., of business models) and product design, contractor management, test management, logistics management, and global emergency response system. Additionally, we are focused on building a quality management system that includes not only JSR Group’s overseas production bases but also contractors and business partners. Such a system will permit us to supply products and services of reliable quality continually and globally throughout the entire supply chain, from product planning, design and development to mass production and customer service. We will continue reinforcing our global quality assurance system in step with JSR’s push into global and widespread fields and as a response to supply chain diversification and increasingly sophisticated customers’ needs that are occurring as a result.

(3) “Building in” Quality

JSR Group builds in quality by conducting verifications and tests using quality control methods matched to product characteristics in each of the steps of development and design, manufacture, and quality assurance. For example, we use Quality Function Deployment³ (QFD) as a means of managing product quality. In addition, when starting the production of a new product or making changes or improvements to a manufacturing process, we make it a point to begin actual work only after conducting verifications that predict abnormalities using Failure Mode and Effect Analysis⁴ (FMEA) to ascertain risks. In this way, we repeatedly analyze risk while making verifications of prevention—for example, we ask, “Are we providing the quality demanded by the customer?” and “Can quality be maintained in mass-production?”—so that we can be sure that no product defects will occur. Moreover, we strive to achieve quality consistency in manufacturing by using Statistical Process Control (SPC).

*3 Quality Function Deployment (QFD):

A design approach aimed at making quality assurance possible by bring the design quality of a supplied product to the manufacturing process.

*4 Failure Mode and Effect Analysis (FMEA):

A systematic method for analyzing potential accidents and defects in order to prevent accidents and defects.

(4) Quality Improvement

JSR Group has added the “Six Sigma methods.”⁵ a quality control approach that reduces product defect rates based on statistical data analyses, to its traditional quality control (QC) methods. Applying both in quality improvement activities is producing substantial results. Moreover, the Six Sigma methods also form the foundation for cultivating a culture of data-driven thinking in preparation for coming digitalization. We are working to build each employee’s awareness of this point.

*5 The Six Sigma methods:

A quality improvement method that was developed by Motorola of the United States in the 1980s. It seeks to suppress quality deficiencies and improve quality by controlling variability with focus on the processes by which variability occurs.

(5) Quality Activities Forum

As a manufacturer, JSR Group has responsibilities to meet the quality, cost, and supply requirements of its customers. To fulfill these responsibilities, top management-led quality performance audits have been performed annually since FY2012 in place of the previously conducted head office quality audits. These audits include reports on plant QA activity concerns such as trends and corresponding solutions of claims and other issues, and activities to improve plant capability. They also

include reports on customer satisfaction levels and presentations on quality improvement activities such as Six Sigma training and small-group improvement activities. In FY2020, the audits were renamed the Quality Activities Forum to further promote each activity. The forum was conducted in February and March 2021.

In addition, we implement internal quality audits and external quality audits to upgrade our quality management system. We strive to improve quality control activities and frameworks in all quality audits with a view to achieving higher customer satisfaction.



Comments on activities from senior management



Quality Activities Forum Excellence Awards (at JSR Corporation's Yokkaichi Plant; March 2021)

(6) Quality Education

JSR Group is also working to enhance employee education. In FY2007, we established training centers in our three plants as part of this effort. We are expanding our education program and providing education on quality control and PLP, holding QFD seminars, and implementing product safety training for specific employee classes (i.e., employees with the company between 1 and 3 years, employees with the company between 6 and 10 years, and employees who will be/have been promoted to the rank of manager). We also see education oriented toward improving quality levels and preventing product accidents as an important activity. JSR Group will continue to promote better awareness of quality among employees and pour effort into human resources development in order to improve quality control and meet the sophisticated needs of our customers.

3. Looking Ahead

With "emphasis on improving customer satisfaction" and achieving a "continuous increase in customer satisfaction," we will continue optimizing our quality management system and improving the quality of our products and services to stay in step with business transformations taking throughout JSR Group. By doing so, we will stay true to our aims of supplying innovative materials and excellent products that meet customer needs and contributing to a better society.



Society

Human Rights

- ▼ 1. Philosophy
- ▼ 2. Advancement Structure
- ▼ 3. Establishment of JSR Group's Human Rights Policy
- ▼ 4. Response to Human Rights Issues

1. Philosophy

As a global company, JSR Group supports the thinking behind the UN Universal Declaration of Human Rights (UDHR), the UN Guiding Principles on Business and Human Rights, and the UN Global Compact and accordingly respects the basic human rights and diversity of individuals. We also understand that we must fulfill our responsibility to respect human rights in all of our business activities.

2. Advancement Structure

We promote respect for human rights as an activity guideline of the Corporate Ethics Committee. The Corporate Ethics Committee is charged with formulating and executing plans to promote human rights and verifying their progress.

> [Sustainability Management and Advancement Structure](#)

3. Establishment of JSR Group's Human Rights Policy

As the provisions of the UN Guiding Principles on Business and Human Rights clearly state, companies have a social responsibility to respect human rights. Fulfilling this responsibility requires having guidelines that are shared and understood throughout the entire group and that can provide the foundation for promoting respect for human rights. JSR is a participant in Global Compact Network Japan's Human Rights Due Diligence Subcommittee. As such, we have acquired knowledge that has proved useful in studying the ideal human rights policy for JSR Group. In September 2021, we established the "JSR Group's Human Rights Policy" following a review by concerned divisions and Group companies in Japan and overseas. The review took into account the aims of the Government of Japan's "National Action Plan on Business and Human Rights" of October 2020. While ensuring that this new policy becomes firmly embedded into the consciousness of each employee, JSR Group will study the introduction of a framework for "human rights due diligence" and effective initiatives in the supply chain.

JSR Group's Human Rights Policy (September 2021)

- > [Japanese \(PDF 188KB\)](#) [PDF](#)
- > [English \(PDF 145KB\)](#) [PDF](#)
- > [Simplified Chinese \(PDF 147KB\)](#) [PDF](#)
- > [Traditional Chinese \(PDF 177KB\)](#) [PDF](#)
- > [Thai \(PDF 97KB\)](#) [PDF](#)

4. Response to Human Rights Issues

(1) Participation in Global Initiatives

The JSR Group is a signatory and supporter of the United Nations Global Compact. We also actively participate in subcommittee activities provided by Global Compact Network Japan. As participants in GCNJ's Human Rights Due Diligence Subcommittee, we gather pertinent information through workshops, group work activities, and the like and disseminate it throughout the company. In group work activities, we participated in a human rights policy group and presented a model case for newly formulating human rights policy under the theme of "our vision of the ideal framework for human rights policy." We also applied insights that we acquired through these activities in formulating the JSR Group's Human Rights Policy. As we believe this policy must continue to be understood and diffused throughout the entire Group, we have decided to join GCNJ's Human Rights Education Subcommittee. We will utilize the knowledge we gain from the subcommittee's activities to consider the forms of education and training that are most appropriate for promoting respect for human rights within JSR Group.

(2) Respect for Human Rights in the Supply Chain

JSR Group also understands the necessity of promoting activities oriented toward respect for human rights in the supply chain. To put this into practice, we reflected the importance of respect for human rights in the items included in a questionnaire survey that we revised in 2017 and in the "JSR Group CSR/Sustainable Procurement Policy" established in 2018. Additionally, the "JSR Group's Human Rights Policy" clearly states that we will continue to encourage our business partners in the supply chain to support this policy and adopt a similar policy. We will continue taking the steps necessary to strengthen collaboration with partners in the supply chain and enhance our respect for human rights.

▶ [Supply Chain Management](#)



▼ 1. Philosophy
▼ 2. Advancement Structure
▼ 3. Organization and Personnel
▼ 4. Employee Engagement
▼ 5. Human Resources Development
▼ 6. Flexible Working Style Support Benefits
▼ 7. Employees Healthy Mind and Body
▼ 8. JSR Workers' Union

1. Philosophy

We, the JSR Group, specify our responsibilities to employees within our management policies.

- Evaluation and rewards based on fair standards
- Continuous opportunities to grow by challenging themselves
- Acceptance of the diversity of fellow colleagues and to be provided a place where all employees can work together as a team

2. Advancement Structure

We advance initiatives to maintain appropriate labor environments as an activity guideline of the Corporate Ethics Committee.

- > [Sustainability Management and Advancement Structure](#)

3. Organization and Personnel

(1) Philosophy

The JSR Group drives its organization and personnel based upon the following measures:

- Develop mechanisms and a corporate culture with a healthy balance of 'Freedom' and 'Discipline,' guided by the Course of Action's 4Cs to enable managers and junior staff to grow together, help all employees accurately perceive and solve issues in order to foster a JSR that not only maintains its organizational capacity, but ensures its future growth.
- Promote the globalization of JSR corporation employees while developing a globalized workforce within JSR Group as well as train and manage the Group's human resources on a global level.
- Generate synergies which take full advantage of the increasing range of diversity (in terms of nationality, culture, gender, values, etc.) throughout the JSR Group's vast human resource pool.

(2) Codes of Conduct

- We shall ensure the fair treatment of employees, based on each person's tasks, roles, and level of commitment.

- We shall respect the diversity of our workforce and make efforts to create a workplace environment that enables every employee to make the best use of their abilities and to find a rewarding sense of satisfaction in their work.
- We shall respect the human rights and diverse characteristics of all individuals, and shall not discriminate against gender, age, nationality, race, ethnic group, origin, religion, beliefs, social status, physical disability, sexual orientation, or other relevant conditions when determining employment status and/or working conditions.
- We shall not force religion and/or belief on others.
- We shall provide a workplace free from sexual harassment and any harassment arising from positions of power. In addition, we will not engage in or make verbal comments with sexual connotations that will make counterparts feel uncomfortable.
- In the event that a staff member reports the violation or possible violation of the law and/or the Principles of Corporate Ethics to his/her superiors and/or internal/external hotline, we shall fully protect the said staff member's identity and protect him or her from unfavorable treatment.

(3) Rank System

We have established an ability-based grade system that sets capability grades corresponding to employees' abilities. Moreover, for employees of higher ranks, we also apply a job rank system that establishes ranks corresponding to given duties (i.e., responsibilities in the organization and performance responsibilities).

(4) Assessment System

We conduct assessments fairly by employing two systems. One is an "ability assessment system" that specifies the specific behavioral characteristics of abilities required for each capability grade in individual occupational categories and then assesses demonstrated abilities based on those standards. The other is an "objective management system" that assesses the degree to which a person has achieved objectives that were determined at the beginning of the fiscal year.

(5) Philosophy concerning Wages and Working Hours

The JSR Group strictly complies with the legally-established minimum wage of each country and region, and provides wages that are based on fair assessments of employees. The JSR Group naturally strives to be legally compliant in terms of working hours. We also endeavor to provide appropriate labor management with the aim of avoiding long working hours and to help employees enjoy a proper work-life balance.

4. Employee Engagement

Improved employee engagement is linked to increased corporate value. In addition to employee awareness surveys that were implemented up to the previous fiscal year, in FY2021, we conducted an employee engagement survey across the entire JSR Group. Based on the FY2021 results, we will clarify issues and implement various measures aimed at improving engagement starting the next fiscal year.

5. Human Resource Development

(1) Human Resource Development Philosophy

We are working on human resource development with the understanding that it is the greatest priority for achieving sustainable, long-term corporate growth. In particular, we are promoting human resource development in order to strengthen our organizational capacity by implementing the Course of Action "The 4Cs" - "Challenge," "Communication," "Collaboration," and "Cultivation" - of our Course of Action at a higher level, and with focus on "skill/know-how" and "awareness/motivation."

Human Resources = Skill and Know-How x Motivation

As a key goal, we will also strengthen our employees' international communication abilities.

(2) Mechanisms and Specific Measures Relating to HR Development

- Continue to implement programs to realize early development of tomorrow's leaders through the Next Leaders Development Committee
- Implement OJT and Off-JT training with a greater emphasis on motivation, a critical ingredient for the development of employee skills and knowledge
- Enhance language and cultural programs in international communication such as intensive language courses in China and abroad
- Continue and expand training to support the passing on of technological expertise and development of manufacturing skills common to all Group plants
- Continuation of specialized skill training for young employees

- Provide training programs with common content between Group companies
- Offer online training (approaches to continue educational training even during the coronavirus pandemic)

(3) Training Programs

JSR conducts a variety of training programs to raise the skills of its employees.

In FY2020, the total annual training time per JSR employee was 12.4 hours.

This total was calculated by including technology and skill training, stratified training programs, and other training organized by human resources departments. It therefore does not include hours spent in education provided independently by departments or external education. Additionally, it does not include educational hours based on e-Learning.

Position	Rank-based training	Job-based Training						Objective-based Training					
		Manufacturing	Production and technology	Research and development	Planning, managing and administration	Marketing and development	Common across all areas	Six sigma	Promoting internationalization	Business skills	Digitalization	Life planning	Assistance to applicants for career transfer
General Manager, Plant Manager	Training the leaders of tomorrow (JSR Business School)				Specialized knowledge courses								
Manager, Team Leader	Middle management training New supervisor and management training				External courses on management strategies								
Project Leader, Section Manager, Group Leader, etc.	Mid-level manager training New supervisor training					Motivation leadership training							
General Employees	Mid-level employee training New employee follow-up training New employee training	- General technical skills training - Safety and environmental training - Quality control training - Public certification training	Basic knowledge training (polymer chemistry, chemical engineering, and chemical processes) Understanding of JSR's unique technologies Quality control (levels: introductory and intermediate) Chemical management, environmental preservation intellectual property, contracts		Accounting and finance, etc.	External courses (for graduates) Accounting, finance, marketing and other external courses Correspondence course (for graduates) English, accounting, finance, marketing, legal affairs, and other correspondence course technical skill courses conducted by individual department							

Making the best use of the training centers we have established near our plants to support the continuing education of our employees, we focus on further refining our strengths in technology and human resources by passing on technical skills at manufacturing sites and expanding employee education programs.



Yokkaichi Training Center



Chiba Training Center



Kashima Training Center



Miniature Plant in Yokkaichi Training Center



Head Office Training Center (JSR Roppongi Club)

(4) Progressing Corporate Culture

JSR is actively working on reshaping its corporate culture based on the principles of freedom and discipline. Our corporate culture-related activities are comprised of cultivation, on-the-job training (OJT) advancement, and communication

improvement. "Cultivation" works to help managers and subordinates develop together as individuals by promoting inter-personal communication and encouraging managers to provide their subordinates with more opportunities for independence. "OJT promotion" aims to spread preparedness to implement OJT and its philosophy among employees through training. And "communication improvement" creates opportunities for regular informal workplace gatherings and Group get-togethers.

(5) Career Development Program (CDP)

We have established the Career Development Program (CDP) in conjunction with other training programs in the development of human resources and the young generation of JSR.

With CDP, recent graduates will work temporarily in different departments for their first few years as part of their development.

We believe that this kind of rotation forms the basis of human resources development. Since first introduced in 1988, we have continued to improve and refine this method of training. Each employee must work in at least three different departments during their first 10 years of employment. This program produces highly capable employees that have excellent efficiency and inter-departmental communication skills due to their understanding and awareness of the relationships between upstream and downstream processes.

CDP Committee members individually interview employees that will enter CDP before forming individual rotation plans at a general CDP meeting. The Human Resources Department runs the CDP Committee, and each Division Director is a committee member.

(6) Employee Awards Program

We use various awards programs to enhance employees' motivation. Among the awards presented are the President's Award, Production and Technology Award, Research and Development Award, Environment Distinguished Service Award, special commendations, length-of-service commendations, and "zero accidents" commendations.

6. Flexible Working Style Support Benefits

(1) Flexible Working Style Support Benefits

Child-rearing and nursing care are situations that have significant impacts on life. Because of this, JSR has a variety of systems designed to create an environment that helps employees balance work and caretaking duties. Additionally, JSR distributes a guidebook detailing the various support programs available for balancing work and caretaking (including those within the company and without) to make them known among employees.

We are taking various initiatives to support employees' diverse working styles. In addition to easing the requirements to qualify for the work-from-home system, this includes changing the system to eliminate uniform time limitations (up to 5 days per month) and allow for flexibility depending on the work or department; starting a by-the-hour annual paid leave system that allows employees to take their annual paid leave in one-hour increments; extending the time employees can work shortened hours for child-rearing and nursing care; and adding more annual paid holidays for young employees (14 days in the first year of employment).

> [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

JSR's Flexible Working Style Support Benefits

Life Stage	Available Support	Description
Prenatal (Fertility treatment, prenatal care etc.)	- Shortened working hours	During pregnancy, employees may reduce their working hours up to two hours per day. Employees engaged in fertility treatments can reduce their working hours by up to four hours per day, or up to 44 hours per month.
	- Work from home	Employees can work from home one day per week or five days per month, even in cases not related to child-rearing or nursing care.
Before and after childbirth	- Maternity leave (prenatal & postpartum)	Employees can take maternity leave starting six weeks before, and extending eight weeks after childbirth.
	- Special paid paternity leave	Male employees can take four days of special paid paternity leave anytime from one week prior to two weeks after the birth of their child.
	- Extended childcare leave	Employees are able to take an extended leave of absence until their child turns 18 months of age.
	- Extended childcare leave counseling	Upon request by employees taking extended childcare leave, counseling sessions between the employee and their supervisor are held. In these sessions they discuss and aim to resolve any worries or issues that could hinder a smooth transition back to working life.
Balancing work and childcare	- Shortened working hours	Employees with non-working spouses can shorten their working hours until the child is three years of age. Additionally, employees with working spouses can reduce their working times until the child is in their sixth year of elementary school.

	- Work from home	In cases where increased productivity is anticipated, employees can work from home based on a schedule where the work-from-home frequency or period is set individually, subject to approval by the department head.
	- Family-care leave	Employees can take up to ten days of leave in half-day units per year to provide nursing care for family member's that live in the same household. Uses include, accompanying family members to the hospital, medical examinations, vaccinations etc.
Balancing work and nursing care	- Shortened working hours	Employees providing nursing-care for family members can reduce their working hours by up to four hours per day, or up to 44 hours per month.
	- Work from home	In cases where increased productivity is anticipated, employees can work from home based on a schedule where the work-from-home frequency or period is set individually, subject to approval by the department head.
	- Family-care leave	Employees can take up to ten days of leave in half-day units per year to provide nursing care for family members that live in the same household. Uses include, accompanying family members to the hospital, medical examinations, vaccinations etc. Can also be taken in one-hour increments.
	- Nursing-care leave	Employees providing nursing-care for family members can take up to 20 days of leave in half-day units annually. Can also be taken in one-hour increments.
	- Extended nursing-care leave	Employees providing care for family members can take up to 24 months of extended nursing-care leave. Extended leave can be broken down into as many as three periods for up to two years.

* Per employee request, mobile devices with remote access to the company network are provided under these benefits.

JSR also provides a discretionary labor system for employees in R&D, as well as a "no-core" flextime labor system for its non-shift-based employees. Employees who need time off for community service activities can take up to a total of five days paid leave per year as volunteer leave.

JSR and JSR Micro Kyushu are Accredited with the "Kurumin" Next-Generation Mark



In August 2007 and April 2012, JSR received the Next Generation Mark accreditation (nicknamed "Kurumin") issued by the Minister of Health, Labor and Welfare. Kurumin designates enterprises that provide superb parenting support. JSR Micro Kyushu also received the mark in May 2017.

(2) JSR Original Support Benefits

In addition to compensation benefits available during paid leave periods via Health and employment insurance, JSR employees are provided with the following original benefits. These benefits aim to aid employees in maintaining a healthy work-life balance.

> [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

- **Childbirth Lump-Sum Allowance**
Women enrolled in JSR's health insurance program are eligible to receive a 100,000 yen per child Childbirth Lump-Sum allowance in addition to the government mandated childbirth allowance.
- **Extended Childcare Leave Allowance**
Employees on extended childcare leave are eligible to receive their base salary with an additional 50% bonus for the first five days. This allowance is funded via the JSR Mutual Aid Association.
- **Post Childcare Leave Reinstatement Allowance**
For employees who have returned back to work for a continues six months following maternity leave or extended childcare leave (of at least one month) are eligible to receive an allowance of 200,000 yen per child. This allowance is funded by the JSR Mutual Aid Association for the purpose of recognizing employees past service, and continued dedication.
- **Daycare Allowance**
In households where both parents work, employees are reimbursed half the cost of baby sitter services that are required on working days. Costs are reimbursed via the JSR Mutual Aid Association with an annual limit of 400,000 yen per eligible employee.

7. Employees Healthy Mind and Body

(1) Philosophy for Physical and Mental Health

JSR feels that a healthy mind and body are extremely important for employees and their families to live happy lives. We also feel that they are imperative in the creation of a productive and vibrant workplace. Because of this, we have adopted various measures to help our employees work in good health, both mentally and physically.

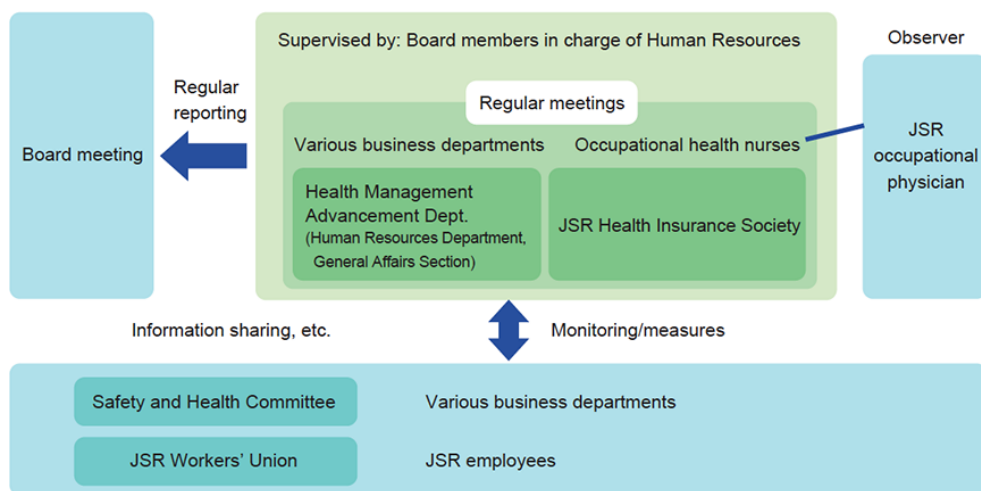
(2) Codes of Conduct

We shall strive to maintain and improve safety and hygiene levels for all relevant parties, based on our belief that "safety is of utmost importance to everyone working in manufacturing and the bedrock of business activities." Additionally, we shall pay sufficient attention to the maintenance of the mental and physical health of ourselves and those we work with.

(3) Health and Fitness: JSR Health Promotion

JSR will advance "JSR Health Promotion" as an activity to support our work-style innovation activities and promote health and fitness among our employees, who are the foundation of organizational activity. We explain the importance of fitness in the company's Top Message. In addition, as part of the framework to advance JSR Health Promotion, the Health Promotion Advancement Council centering on occupational health nurses convenes regularly, and implements monitoring and various measures cross-sectionally across business departments and organizations. The contents of activities conducted by the Health Promotion Advancement Council are shared with the management level, and approaches are made to health promotion of employees.

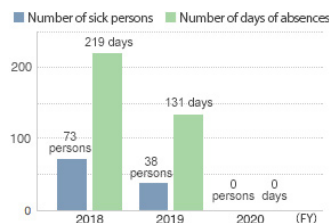
JSR Health Promotion Advancement Structure



(4) Physical Health Assistance

In addition to general physical screening and special examinations as required by law, and lifestyle disease checkups, JSR supports employee's physical health by providing subsidies to employees who receive complete medical screenings, brain scans, and gynecologic cancer examinations. As an infection control measure, JSR also provides a partial subsidy for flu vaccinations. In FY2020, the number of employees who were sick due to influenza was zero, and the number of absences due to influenza was also zero.

Number of Sick Persons/Number of Absences due to Influenza



In FY2020, the percentage of persons with abnormalities in their physical screenings was 26.8%, which is lower than the national average. This signifies that our employees are maintaining good health.

In addition to a high-risk approach (individual measures being taken when illnesses occur), the idea of a population approach (overall risk reduction/prevention) was incorporated with regard to health management of employees. We make active approaches to ensuring the health of our employees, by preventing lifestyle-related diseases, ensuring that employees undergo physical screenings and providing follow-up, and preventing passive smoking.

In general, since 2008, the JSR Health Insurance Society has promoted lifestyle disease prevention screenings (diabetes, high blood pressure, and obesity) paired with health guidance and counseling in cooperation with JSR and JSR Group companies to achieve promising results.

Additionally, in addition to providing its own sports facilities as well as memberships in sports clubs through welfare service contracts, each JSR business site hosts sporting events, such as softball games, and bowling tournaments to improve

health through physical activity and facilitate communication among employees. These programs have received positive feedback from employees who do not normally have the opportunity to participate in physical activities.

Examples of JSR sports facilities



Health management center (exterior) and training room, Yokkaichi Plant



JSR athletic ground next to the Kashima Plant

(5) Mental Health Assistance

JSR has taken measures to improve employee mental health since the issue first began drawing attention. JSR takes a four-point approach in providing mental health support, "Check," "Organizational Analysis," "Consultation," and "Training."

Checks and organizational analysis include an employee mental health survey conducted by JSR since FY1998. Starting in FY2015, stress checks have been implemented annually in accordance with the amendment of the Industrial Health and Safety Act in Japan, and the results of such checks are analyzed in units of departments.

Consultation includes the establishment of a program to provide counseling for employees at a location of their choosing. Counseling is conducted through a third-party professional, Human Frontier Counseling. This program has been established at each of the JSR domestic group companies as a part of our mental-health counseling support efforts. In efforts to provide stable and quality mental health counseling, occupational health professionals are present at all of JSR Corporation's offices and plants.

Training includes a variety of mental health care programs, such as self-care and line-care that properly reflects each level of JSR's organizational hierarchy.

(6) Measures Against the COVID-19

As measures against COVID-19, JSR is implementing appropriate prevention measures at the workplace as well as daily health management in alignment with the state of each business site, based on social conditions. We are making approaches toward preventing infection, such as by building a framework where employees check their health status every day, and report and record this online/offline.

JSR has been implementing health exercises by a health fitness programmer from the JSR Health Insurance Society, for health and strength development of employees. With the spread of COVID-19, however, we have started health exercises online starting in FY2020. With a total of 2,959 users, this program helps to solve the issue of lack of exercised caused by working from home and quarantining.

8. JSR Workers' Union

(1) Thinking vis-à-vis Workers' Union Activities

We strive to maintain a relationship with the JSR Workers' Union whereby we can routinely conduct constructive dialogues through regular labor-management councils, meetings concerning the revision of labor agreements, and other opportunities. We also work with the JSR Workers' Union to build better workplace environments with attention to union concerns—namely, "wage policy," "labor environment policy," "welfare policy," "leisure time, public relations, and volunteerism policy," and "organizational policy."

(2) Codes of Conduct

We will abide by national and international labor codes and respect workers' right of association and right for collective negotiation in the realm of basic labor rights.

(3) Communication between JSR and the JSR Workers' Union

JSR and the JSR Workers' Union have entered a labor agreement based on workers' union regulations.

The president, directors in charge of individual business segments, and workers' union representatives have regular discussions with the workers' union to exchange opinions and conduct QA sessions regarding the working environment, business conditions, major company policies, and workers' union activities. The JSR Workers' Union discloses the content of these discussions with union members. Moreover, through frequent labor-management councils at the employee and plant levels, local labor-management councils, and Safety and Health Committee meetings, we endeavor to deepen mutual understanding and trust as well as to maintain and strengthen sound labor relations. In FY2020, we endeavored to create work-friendly environments through repeated discussions concerning methods for administering work-at-home arrangements.

(4) Dialogue between the Workers' Union and its Members

Union members at each plant represent plant workers' opinions. They also act as a conduit between union leadership and the union members. Workplace discussions and questionnaires are conducted to ensure the ideas and opinions of union members are incorporated into union activities.

(5) JSR Workers' Union Membership

As of the end of March 2021, the membership rate in the JSR Workers' Union was 100%, made up of 2,799 non-exempt employees excluding board members, management personnel, etc. As an umbrella organization, the Union is a member of the Japanese Federation of Chemical Workers' Unions.

> [ESG Data \(PDF 1.2MB\)](#) [PDF](#)



- ▼ 1. Philosophy
- ▼ 2. Advancement Structure
- ▼ 3. Main Activities

1. Philosophy

At JSR, since 2017 we have been focused on work-style innovation activities to improve competitiveness and realize sustainable growth for both the company and our employees.

The company must encourage the success of diverse employees by developing and maintaining work environments, systems and IT infrastructure that allow for flexibility of work style and respect employee autonomy, thereby contributing to engagement and productivity improvement. Each department must develop systems capable of achieving their organizations' "ideal form," and employees must work vigorously and in good health while balancing their work and home life (work-life management). With this in mind, we analyze our operations and fundamentally review how we work while applying cutting-edge digital technology capabilities. And we promote initiatives for realizing diverse work styles while dramatically improving productivity.

2. Advancement Structure

Each department discusses the "ideal form" for its organization, identifies challenges, and executes concrete measures with the participation of each employee. Dedicated teams report on those to management, and the intranet is used to share case study examples in the context of advancing company-wide activities.

Since 2020, this structure has been changed, from the company-wide uniform measures, to support dedicated teams in implementing independent initiatives, at the discretion of each department, and to facilitate awareness-raising in-house via communications from the corporate officers in charge in order to foster achievement of a common ideal.

3. Main Activities

Each department considers and executes "work styles" that bring it closer to the "ideal form" it prepared for its organization. We promote discussion among management, as well as across the entire company, of not only schemes for fostering diverse work styles and the advancement of IT, but also of what constitutes the best "work style" for each person, which includes mental aspects. In 2020, the "New Work Style Project" was launched in response to the spread of COVID-19. This project involved surveying employees and interviewing department heads at JSR offices and sites and, from this, determined that the ideal work style conditions would "provide a flexible work format with various tools to facilitate work activity achieving targets and expected results." Towards this end, we have been working step-by-step to (1) revise the image of the ideal office (particularly in terms of headquarters functions), (2) strengthen IT support contributing to greater convenience and work productivity, and (3) develop human resources systems and measures that will improve productivity and competitiveness and maximize engagement.

FY 2020 Topics

• WSI Management Seminar

COVID-19 was a catalyst for rapid change in our work styles.

For JSR headquarters, the long duration of the work-from-home situation strongly reinforced the need for evolution in how managers and subordinates, as well as members within teams, communicate, as well as how management operates. Add to this the inability to freely visit plants and laboratories, or to meet with customers, due to the restrictions in place, and it became apparent that real work style innovation was needed to find out how job implementation could be changed in order

to ensure results can still be achieved.

It was in this context that around 150 team leaders from various workplaces took part in the WSI Management Seminar which was carried out with the following aims.

- To be aware and supportive of the mental and emotional wellbeing of teams.
- To dialog with other leaders about management, reflect on one's own management approach, and apply what is learned to further improving organizational management.

Although the seminar was completely online, it utilized a format that put small numbers of participants together into workshop groups to facilitate ample dialog. It has contributed to stronger lateral connections among the leaders, as well as to greater organizational strength.

• Smart Work Design Book

With the rapid transformation in work style taking place, it became obvious that online meetings would be a given company-wide. Also, in order to maintain work style flexibility even after the end of the pandemic, such as with hybrid work-from-home and in-office arrangements, it was essential that readily accessible IT tools be available.

In FY2020, particularly for the sake of making online communications more efficient, a “Smart Work Design Book” was created to encourage use of the greatly underutilized chat functionality, as well as to compile various simple, easy-to-understand tips and ideas, such as for holding online meetings. This publication was posted on the intranet, distributed via POP displays in cafeterias and promoted via other means company-wide.

This initiative, by improving efficiency in the large volume of daily communications which take place, even by just a little, enables more to be communicated with less, thereby speeding up the decision-making process and improving productivity as well as, by extension, JSR's competitiveness.



The “Smart Work Design Book” itself is also available online.



Awareness-raising via a POP display in a cafeteria (North Gate Cafeteria at the Yokkaichi Plant)



<ul style="list-style-type: none"> ▼ 1. Philosophy: Recruitment and Promotion of Diverse Human Resources
<ul style="list-style-type: none"> ▼ 2. Advancement Structure
<ul style="list-style-type: none"> ▼ 3. Advancement Measures and Schemes <ul style="list-style-type: none"> (1) Promoting the Active Participation and Advancement of Women in the Workforce (2) Promoting the Active Participation of Employees Providing Nursing Care (3) Promoting the Reactivation of Resigned Employees (4) Activation of Foreign Nationals (5) Employment Opportunities beyond Retirement (6) Support for Employees with Disabilities

1. Philosophy: Recruitment and Promotion of Diverse Human Resources

Incorporated into JSR Group’s Management Policies is the JSR Sustainability Vision for employees, which states, “Respect diversity, equity, and inclusion, and enable all employees to demonstrate their full potential. Evolve to meet employees’ changing needs and maximize employee engagement.”

JSR Group aims to be a resilient organization capable of responding flexibly to various changes in the business environment. To achieve this, we believe it is important to hire and promote a diverse workforce; to respect and recognize each employee’s values, ideas, and viewpoints; to accept and better each other; and to consider and tackle all possibilities. We are striving to create a corporate culture that values individuality. Specifically, we aim to provide an environment in which each employee can take advantage of various work styles and a full range of systems to demonstrate and manage his or her own abilities to bring results and stronger competitiveness to the organization.

> [Work-style Innovation](#)

2. Advancement Structure

JSR established a Diversity Development Office in 2015 as an organization dedicated to the advancement of diversity, equity, and inclusion (hereinafter “DE&I”). The office’s primary focus has been on providing active support for female employees and helping employees balance work with childrearing, nursing care, and other family duties. Its mission is to establish and implement initiatives that enable diversity in the workforce. JSR must address a range of categories that go beyond just gender differences. Examples include promoting participation by foreign nationals and individuals with disabilities, supporting employees who work while also dealing with nursing care or illness, and addressing the generation gap and issues in the lesbian, gay, bisexual, and transgender (LGBT) community. We aim to embrace diversity and utilize individuality.

Beginning in FY2020, we are positioning DE&I as a global JSR Group initiative. One aspect of this is the assignment of a DE&I officer to JSR North America Holdings. As we share this global orientation, we will incorporate the perspectives of each country and organization and tackle DE&I issues that differ from one organization to another.

3. Promotion Measures and Schemes

(1) Promoting the Active Participation and Advancement of Women in the Workforce

As a part of our mid-term business plan, JSR has publicly announced our quantitative targets for the active support of our female employees. We have also developed an action plan to promote and support the lives of working women within JSR, based on and in accordance with the Act on Promotion of Women’s Participation and Advancement in the Workplace (Women’s Act). The Women’s Acts’ third phase is set for April 1, 2020, to March 31, 2022. These targets demonstrate our management’s commitment in achieving understanding and cooperation throughout the organization. We have also publicly

announced action plans to nurture and raise the next generation of children. These plans are based the Act on Advancement of Measure to Support Raising Next-Generation Children (Next-Generation Act), which has been in effect since April 2005. The eighth phase of which is set for April 1, 2020, to March 31, 2022. We continue to establish, notify, publicly disclose, raise awareness of, and implement action plans throughout the second phase of the Women's Act and seventh phase of the Next-Generation Act while executing initiatives in line with both acts.

- > [Act on Promotion of Women's Participation and Advancement in the Workplace: Action Plan for Promoting the Active Participation and Advancement of Women in the Workforce \(PDF 56KB\)](#) [PDF](#)
- > [Act on Advancement of Measures to Support Raising Next-Generation Children: Action Plan for Advancing Measures to Support Raising Next-Generation Children \(PDF 40KB\)](#) [PDF](#)

Active support of Women in the Workforce: Quantitative Targets

	Target	FY2017	FY2018	FY2019	FY2020	FY2021
Percentage of women hired annually per position	College graduates, engineering positions: 30%*	20%	18%	23%	26%	33%
	College graduates, administrative positions: 50%*	50%	45%	50%	55%	75%
Percentage of women in managerial positions	March 2023: 6%	3.8%	4.1%	4.3%	4.1%	4.5%

* As of April 1st of each fiscal year

* Set from the ratio of male and female students.

- > [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

1) Creation of Systems to Actively Support Women in the Workplace

- > [Labor Environment](#)

2) Developing Programs that Support Working Women

The following programs are held with special consideration for female employees, and managers, in order to increase female employees' ownership of their career development at JSR.

- Career Development Seminar for Assistant Manager-Level Female Employees
- Work Communication Seminar: Managers improve their diversity management skills
- Track Transfer Seminar: Employees brainstorm about career possibilities and skill development after changing career tracks within JSR.
- Communication Seminar: Manufacturing employees improve their communication skills.

Other seminars focusing on specific themes are also held as appropriate.

JSR received "Eruboshi" certification as a company making outstanding efforts to promote women's participation.

On October 28, 2019, JSR earned the "Eruboshi (Stage 2)" designation after being certified by the Minister of Health, Labour and Welfare as a company making outstanding efforts to "promote women's participation" based on the Act on Promotion of Women's Participation and Advancement in the Workplace.



(2) Promoting the Active Participation of Employees Providing Nursing Care

Today, Japan has what is called a "super-aging society"^{*1}. It is reported that about one in four people in Japan aged 75 or older requires nursing care, and the number of employees who are faced with providing such care is expected to increase. JSR offers a variety of support measures that allow employees who provide nursing care to balance that care with their work.

*1 Super-aging society: A society in which the share of the elderly population aged 65 years or older within the total population exceeds 21%.

- > [Labor Environment](#)
- > [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

(3) Promoting the Reactivation of Resigned Employees (Career Re-Entry System)

JSR instituted its Career Re-Entry System to enable employees who voluntarily left JSR and the workforce (due to marriage, childbirth, nursing care responsibilities, or the transfer of a spouse, for example) to register for rehire in accordance with company needs and the former employee's desires.

- > [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

(4) Activation of Foreign Nationals

Sixty percent of JSR Group's revenue comes from overseas, and one-third of its employees are not Japanese. We therefore engage in corporate activity that is founded on the leadership of a CEO who is well acquainted with circumstances in Japan and abroad. Moreover, to secure personnel who can succeed on the global stage, we promote the development of workplace environments within which employees of different nationalities, religions, and lifestyles can work together while demonstrating their own unique characteristics.

> [ESG Data \(PDF 1.2MB\)](#) [PDF](#)

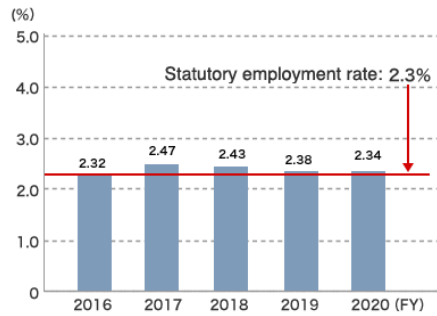
(5) Employment Opportunities beyond Retirement

In accordance with the Act on Stabilization of Employment of Elderly Persons, JSR has systems in place that enables employees who have reached the mandatory retirement age to stay in the JSR workforce. Prior to retirement, employees complete a survey concerning their desire to continue employment. All of those who wish to continue working are re-employed.

(6) Support for Employees with Disabilities

As of the end of FY2020, JSR's employment rate of individuals with disabilities was 2.38% (the statutory employment rate is 2.3%). By discussing their strengths, and the details of their disability, we are able to find a work style that best suits each employee's situation. Although it remains the case that few employees with disabilities work in areas where hazardous materials are handled, such as manufacturing and research laboratories, we are nonetheless working on ways to ensure safety while expanding employment opportunities for people with disabilities.

Employment rate of individuals with disabilities



Scope of aggregation: JSR Corporation



<ul style="list-style-type: none"> ▼ 1. Philosophy
<ul style="list-style-type: none"> ▼ 2. Supply Chain Management <ul style="list-style-type: none"> (1) CSR/sustainable procurement (2) Assessment of business partners (3) Initiatives concerning conflict minerals (4) Education and training of employees in charge of procurement (5) Participation in initiatives concerning CSR/sustainable procurement
<ul style="list-style-type: none"> ▼ 3. Green procurement and purchasing <ul style="list-style-type: none"> (1) Green procurement of raw materials (2) Green purchasing of office equipment and supplies

1. Philosophy

We believe that an important role of JSR Group is to offer innovative materials and excellent products that meet customer needs and contribute to the making of a better society.

We are able to respond to social issues through our business partners and supply chain management.

2. Supply Chain Management

(1) CSR/sustainable procurement

JSR Group supply chain management has a unique feature of a chemicals manufacturer supplying materials to various industries and supporting society. Specifically, that is our ability to deliver products of discernible quality to our customers reliably and without interruption.

Supply chain management is specific to each of our businesses and so is different in the Elastomers Business, Plastics Business, Digital Solutions Business, and Life Sciences Business. The JSR Group Purchasing Policy states that when making purchases, JSR will give sufficient consideration to legal and regulatory compliance, resource protection, environmental conservation, safety, human rights, biodiversity, and other factors that lead to a sustainable society. With suppliers' understanding, and through communication, mutual understanding, and cooperation, we can continue engaging in effective initiatives. Based on our Purchasing Policy and CSR/sustainable procurement initiatives implemented in FY2010, we surveyed the social and environmental considerations of our suppliers using a questionnaire. When an issue was detected, we dispatched the person in charge of procurement to the supplier to work on solving the issue together. We were able to survey the suppliers that represent 99% of our purchased materials by FY2013. We will continue to conduct the same process as we establish new suppliers in the future.

Additionally, as the supply chain becomes more globalized, issues such as forced labor, child labor, environmental destruction, global warming, and corporate scandals are coming to light. Boycotts and demands for rectification are also not uncommon. Developments such as these are beginning to have significant impacts on corporate activities. In response, we revamped and expanded the questionnaire items used for surveying CSR/sustainable procurement in FY2017. We are now conducting the second round of the survey using this revised questionnaire. Moreover, we understand that engaging in supply chain management in this way brings mutual prosperity to both JSR Group and our business partners. We therefore rearranged JSR Group's desired compliance items appearing in the revised questionnaire and newly formulated a "JSR Group CSR/Sustainable Procurement Policy" in December 2018.

We are sequentially distributing the new policy to our business partners and asking them to make it known to their organizations and to practice it.

> [JSR Group CSR/Sustainable Procurement Policy](#) 

(2) Assessment of business partners

We regularly confirm that our business partners satisfy assessment standards that we demand. This confirmation takes place when beginning new business with a partner as well as during ongoing business with existing partners. When assessing candidates for new business, we evaluate them based on certain criteria concerning the status of their financial affairs and level of quality management. We also conduct an onsite audit prior to the start of business to verify items concerning safety, the environment, and quality. At the same time, we also reassess business partners with whom we have a continuing business relationship using similar criteria when starting a new transaction with them. Some raw materials are difficult to procure in an emergency due to issues concerning availability or scarcity. For them, we strive to secure stable availability for our customers by conducting regular supplier audits, making onsite checks of matters having a bearing on supply continuity, and providing proposals and guidance for quality reliability.

(3) Initiatives concerning conflict minerals

Our policy based on the above-mentioned Purchasing Policy is to never permit the use of conflict minerals (tin, tantalum, tungsten and gold), either directly or indirectly. We work with our business partners to continuously verify that we use no conflict minerals. In FY2015, we conducted an investigation concerning the use of conflict minerals and confirmed that none of the targeted suppliers used them. Since then, we have investigated the use of conflict minerals when acquiring new raw materials or using a new supplier, and have maintained a system that guarantees we do not use conflict minerals. On the other hand, in recent years, there has been growing concern about human rights violations associated with cobalt mining, which is seen as a hotbed of child labor. In light of this, we plan to exhaustively investigate whether any problems exist with respect to cobalt (in addition to the conventional conflict minerals) in our operations. This investigation will make use of global standard templates provided by the Responsible Minerals Initiative (RMI)—namely, the Conflict Minerals Reporting Template (CMRT) and Cobalt Reporting Template (CRT).

(4) Education and training of employees in charge of procurement

We recognize that educating and training purchasing department personnel who promote CSR/sustainable procurement, deal with conflict minerals, and handle other actual operations are important for guaranteeing sound supply chain management. We therefore provide introductory education to new procurement personnel in purchasing departments to ensure that they fully understand the JSR Group Purchasing Policy. We also encourage them to acquire the Japan Management Association-accredited Certified Procurement Professional certification (CPP; a qualification certifying expertise in the purchasing and procurement field) to deepen their understanding of CSR/sustainable procurement and promote their acquirement of more advanced knowledge. We support them in this endeavor by paying the costs of workshops and examination fees.

(5) Participation in initiatives concerning CSR/sustainable procurement

JSR participates in Global Compact Network Japan's Supply Chain Working Group. We utilize knowledge obtained through dialogues with stakeholders to strengthen our CSR/sustainable procurement activities. For example, we apply this knowledge when formulating the JSR Group CSR/Sustainable Procurement Policy and reflect it in questionnaire items used when surveying business partners.

3. Green procurement and purchasing

(1) Green procurement of raw materials

JSR has long been committed to "green procurement," an approach that puts the highest priority on goods with minimal environmental impact when purchasing raw materials. In response to the growing industry trend in managing chemicals in the supply chain, JSR joined the Joint Article Management Promotion-consortium (JAMP)^{*1} in October 2008, and reviewed of its Green Procurement Guidelines^{*2}. JSR will continue to practice green procurement with an emphasis on disseminating information through the supply chain.

*1 The Joint Article Management Promotion Consortium (JAMP) was established as an inter-industry organization in September 2006 to support activities that aim to create and expand specific systems for the proper management of information on chemicals in articles (components, products, and so on) and to facilitate the disclosure and dissemination of information within supply chains. JSR conducts activities that contribute to the practice of these principles through its participation in JAMP.

*2 Green Procurement Guidelines:

JSR began formulating its Green Procurement Guidelines in 2000 and has been promoting environment-friendly "green procurement" based upon them. In 2008 JSR joined JAMP and revised the guidelines to bring its managed substances and format in line with JAMP MSDSplus. We again revised the guidelines during a switch from MSDSplus to chemSHERPA (a new format led by the Ministry of Economy, Trade and Industry for communicating information on chemical substances) in 2018. We will continue advancing green procurement with an emphasis on the dissemination of information so we can effectively manage chemical risks in our supply chains

(2) Green purchasing of office equipment and supplies

JSR defines green purchasing as the purchasing of environmentally friendly office equipment and supplies not directly related to its products or manufacturing. Green purchasing is distinguished from the green procurement of raw materials for products, packaging materials, and manufacturing facilities.

The Law Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities (commonly referred to as the Green Purchasing Law) was enacted in 2000, and Japan's basic policy on the law was

announced in 2001, when the law came into effect. Based on this policy, JSR strives to prioritize equipment and supplies with energy-saving features and high recycled content. In FY2020, green purchasing represented 38,278,000 yen out of a total of 50,947,000 yen in purchases at all business sites. This is equivalent to a green purchasing rate of 75%.



Society
Social Contributions

▼ 1. Philosophy
▼ 2. Advancement Structure
▼ 3. Initiatives Concerning the COVID-19 Pandemic
▼ 4. Approaches in FY2020

1. Philosophy

JSR Group established its "Philosophy to Social Contribution" in January 2009. We are currently implementing the initiatives outlined in this philosophy.

Philosophy to Social Contributions

- 1) Our Corporate Mission dictates that we contribute to society through our business activities. Further, we are actively engaged in providing solutions to social requirements and issues as a responsible member of society.
- 2) We are continuously engaged in positive social contribution activities, capitalizing on the chemical and technical knowledge and skills that form the core of JSR business.
- 3) Every employee is a point of contact between the Company and society, and we actively support our employees in their voluntary participation in social contribution activities.

Additionally, in 2010 we established "standards for making donations to disasters" in order to stipulate evaluation criteria when making donations to natural disasters. This brought greater clarity to standards and allows contributions to be made promptly and fairly.

2. Advancement Structure

The JSR Sustainability Planning Committee plans and executes activities that promote JSR Group's standing as a good corporate citizen.

- > [Sustainability Management and Advancement Structure](#)

3. Initiatives Concerning the COVID-19 Pandemic

JSR Group will work as a one to address challenges associated with the COVID-19 threat. Visit the following links for information on specific initiatives.

- > [JSR's Responses to COVID-19](#) 
- > [JSR donated medical masks to medical institutions to support countermeasures against new coronavirus infection \(Japanese only\)](#) 

We also donated a total of 100,000 masks to local governments near our main sites.



Certificate of appreciation received from Kamisu City

4. Approaches in FY2020

The following section describes some of our main social contributions for FY2020.

(1) Academics, Education, Culture

JSR Group provides support for young-generation development and education opportunities through continued efforts to provide education and internship opportunities to students both in Japan and abroad. We also provide career experience opportunities. In FY2020, we scaled back face-to-face activities to help check the spread of COVID-19.

- **Employee-led lectures at Nihon University**

Each year, employees of JSR's Chiba Plant give lectures at Nihon University's College of Industrial Technology. These lectures constitute a part of our efforts to promote collaboration between industry and academia.*

On November 3, 2020, employees led online lectures on "The Properties and Manufacturing Processes of Rubber" and "Quality Assurance." They were attended by some 127 students.

* Ichihara City's program to strengthen collaboration between industry and academia

- **Support for undergraduate students, graduate students, and international students**

We provided assistance to students who are facing financial hardship due to the COVID-19 pandemic.

By providing scholarships through universities, we aim to help students—whom we view as the creators of our future—concentrate on their studies.

- **Creation of educational opportunities Participation in book bag donations in Yokkaichi**

Since 2014, the Yokkaichi Plant, with cooperation from JSR Group and JSR Labor Union, has participated in the "Memory Book Bag (Randozeru) for Children in Afghanistan" event held by JOICFP, an NGO engaged in international cooperation. Through the event, we donate used school bags to underprivileged children in Afghanistan to assist in their education. The event's aim is to help give children the knowledge and information they need to keep themselves and their families healthy by attending school and learning to read and write. In May 2020, we again donated book bags as well as pencils, notebooks, and other stationery. We will remain involved with this event as a form of social contribution in which individual employees can participate.



Donated book bags and stationery

> [JOICFP \(external site\)](#)

- **Support for the non-profit organization Supporting Organization for Artists of Tohoku (SOAT)**

JSR supports the activities of the non-profit organization SOAT.

SOAT carries out support activities for victims of the Great East Japan Earthquake in March 2011 by creating motivation in life through art workshops.

> [NPO Supporting Organization for Artists of Tohoku \(external site\)](#)

- **Donations to the Otsukado Performing Arts Preservation Society**

The Otsukado Performing Arts Preservation Society in Joso City, Ibaraki Prefecture, is committed to preserving Tsunabi, a kind of traditional play that dates back to the Edo Period. The play is enacted with wooden dolls wrapped in fireworks that hang from a string. It is performed for the public every year at the Grand Festival at Hitokotonushi Shrine in Otsukado. Elastimix donates to this preservation society to help keep this tradition alive.

- **Participation in the Human Resources Fostering Program in Chemistry**

The Human Resources Fostering Program in Chemistry was created by the Japan Chemical Industry Association (JCIA) in October 2010. It is based on a proposal made in a report prepared in April of the same year by the "Kagaku Bijon Kenkyukai" (chemistry vision study group) of the Ministry of Economy, Trade and Industry. The program informs universities of the chemical industry's human resources needs. The industry then supports the university courses that can meet these

needs and their students. The program's purpose is to develop the young people who will serve as the foundation for stronger international competitiveness and industrial promotion in Japan's chemical industry. We use the program to support courses engaged in outstanding initiatives and their students.

(2) Community activities, environment

JSR Group undertakes various activities to build good relationships with local communities and people living nearby. The Group's offices and plants in Japan and abroad continually conduct clean-ups targeting nearby communities, coastlines and rivers, and other areas.

• Participation in a beach cleanup on a remote island

JSR's Yokkaichi Plant participates in coastal cleanup activities on Toshijima, an island in Toba City, Mie Prefecture. Companies and organizations that are members of the Mie Prefecture Industrial Waste Solutions Promotion Committee and environmental administrators of Mie Prefecture participate. JSR's Yokkaichi Plant serves as an executive member company of the committee.

• Participation in hands-on forestation development activities to protect water resources

Techno-UMG Co., Ltd. participates in hands-on forest development that protects water resources.

Techno-UMG participates in these activities each year as a member company of the Kotogawa Industrial Water Users' Association. Their aim is to cultivate and maintain the water sources of the Kotogawa Dam watershed while also encouraging a better understanding of the roles that forests have and the necessity of forest development through hands-on thinning of trees and bamboo. Each year, Techno-UMG also participates in efforts to protect and nurture grasslands on the Akiyoshidai Plateau, located in Mine City, Yamaguchi Prefecture.

These activities are undertaken with the participation of concerned organizations and local residents as well as companies that do business in the prefecture and their employees' families.

Techno-UMG's Ube Plant makes a local contribution by assisting with water conservation activities and traditional events.



Forestation development activities to protect water resources

• Releases of aquatic organisms

Elastomix (Thailand) released fish together with Amata City.

And JSR BST Elastomer (Thailand) participated in a freshwater fish release in Nong Bua Daeng, Rayong Province.

• Donation to a greenery promotion organization

Emulsion Technology donates a portion of its beverage vending machine sales to the Mie Greening Promotion Association. The donations are used to promote tree planting, periodic forest thinning, and other forms of greening.

(3) Social welfare and health

• Cooperation with blood donation activities

Blood cannot be stored for a long time, nor can artificial blood be created.

JSR Group has long been an active participant in blood donation activities at both domestic and overseas offices and plants.

In this way, the Group helps to ensure a stable supply of blood to medical institutions and save the lives of as many people as possible.

• Mutual aid fundraising

JSR Micro Korea donated the money collected from the in-house bazaar auction to the Community Chest for Social Welfare.

• Donation of foreign coins

JSR Group has been conducting a foreign coin collection campaign since 2009 to assist a program that supports children around the world through the Japan Committee for UNICEF. Collection boxes for this purpose have been set up in the Tokyo, Yokkaichi, and Tsukuba Districts.

These coins are effectively utilized to protect the life, health, and rights of children in developing countries.



A collection box (Tokyo)

• Donations to food banks

Whenever JSR Group updates the emergency supplies and food stocks stored at its business bases, it donates those items that are still within their "best-by" period to nearby food banks.

The donated food items are delivered from the food banks to facilities and people in need, and thereby help people in difficult circumstances get by.

• Participation in aluminum can collection activities

Since October 2010, the JSR Yokkaichi Plant has been participating in aluminum can collection activities for “i-project”, an independence support organization for children with disabilities in Yokkaichi City. Aluminum cans are useful in “can crushing,” which is a form of multi-functional work activity. We therefore plan to continue participating in this activity.

- **Plastic bottle cap collection**

In the Tokyo and Yokkaichi Districts and at JM Energy, JSR Group collects plastic bottle caps that would ordinarily be incinerated as waste and sells them to recycling companies. The funds earned through this activity are then used to provide vaccinations to children around the world.



Plastic bottle cap and aluminum can collection boxes (JSR Yokkaichi Plant)

- **The Table for Two Program**

The JSR Group's Tokyo and Yokkaichi Districts have participated in the TFT program run by the non-profit organization TABLE FOR TWO since February 2010. We have donated approximately 180,000 meals as of the end of March 2020.

TFT is an initiative for sharing meals with children in developing countries. When an employee purchases a healthy meal designated by TFT, 20 yen of its price is donated to buy a school meal for a child in a developing country. School meals do more than satisfy children's hunger; they also improve school attendance rates and academic performance, improve children's physical fitness, strengthen disease prevention, and lead to the formation of communities between schools and parents. They therefore play an important role in solving poverty.

In Yokkaichi City, activities (CUP FOR TWO) that utilize beverage vending machines are ongoing.



- **JSR donations to help resolve global health issues**

We make donations to the Japan branch of the Médecins Sans Frontières NGO and other medical care support programs that provide treatment for HIV/AIDS and infectious diseases, such as cholera and malaria.

(4) Assistance to disaster-stricken areas

- **Presenting recent developments and products of Tohoku via the company intranet**

Due to the government's declaration of a state of emergency amid a surge in COVID-19 cases, we decided to use the company's intranet to present recent happenings and products of the Tohoku region in lieu of the annual "Tohoku reconstruction support market."^{*1}

A decade has passed since the Great East Japan Earthquake. And while the affected areas are steadily recovering, they continue to need support in rebuilding their communities, providing psychological support, and creating a sense of purpose in life. JSR Group will continue to actively meet society's requirements and resolve social issues as a responsible member of the community.

*1 "Tohoku reconstruction support market": A sustainability project that sells products from three Tohoku prefectures that were particularly affected by the Great East Japan Earthquake (Iwate, Miyagi, and Fukushima) and fosters communication between employees and Tohoku residents.

(5) Employee volunteer activity support

JSR actively supports employees who voluntarily participate in social contribution activities. Employees can take up to five days of paid leave per year as a part of our paid volunteer leave system. This allows them to participate in social contribution activities that occur during working hours.

> [ESG Data \(PDF 1.2MB\)](#) [PDF](#)






Governance

Corporate Governance

It is JSR Group's goal to make steady progress in realizing its corporate mission (Materials Innovation: We create value through materials to enrich society, people and the environment). This shall be done through efficient and transparent business management by sustaining sound and healthy business practices. The Group will also continuously strive to create new corporate values with the hope of becoming an attractive corporation that can earn the trust of and satisfy the interests of all our stakeholders.

To this end, we strive to expand and enhance our corporate governance as a key issue in our business operations.

Reports detailing our philosophy and operations in corporate governance are available below.

- > [Integrated Report \(JSR Report\)](#) 
- > [JSR's policy, philosophy, governance system, and management system pertaining to corporate governance](#) 
- > [JSR's Corporate Governance Report \(PDF 992KB\)](#) 



<ul style="list-style-type: none"> ▼ 1. Philosophy
<ul style="list-style-type: none"> ▼ 2. JSR Group Principles of Corporate Ethics
<ul style="list-style-type: none"> ▼ 3. Advancement Structure
<ul style="list-style-type: none"> ▼ 4. Corporate Ethics Activities <ul style="list-style-type: none"> (1) Publication and Education of JSR Group Principles of Corporate Ethics (2) Corporate Ethics Awareness Survey (3) Hotline (Internal Reporting Channels)
<ul style="list-style-type: none"> ▼ 5. Legal Compliance Measures <ul style="list-style-type: none"> 1) Approach to Preventing Bribery and Unfair Competition 2) Approach to Taxes (Philosophy) <ul style="list-style-type: none"> (1) Reviewing and Improving Legal Compliance (2) Training and Increasing Awareness <ul style="list-style-type: none"> 1) Compliance Handbook 2) Seminars and E-Learning
<ul style="list-style-type: none"> ▼ 6. Protection of Personal Information
<ul style="list-style-type: none"> ▼ 7. Approaches toward Information Security

1. Philosophy

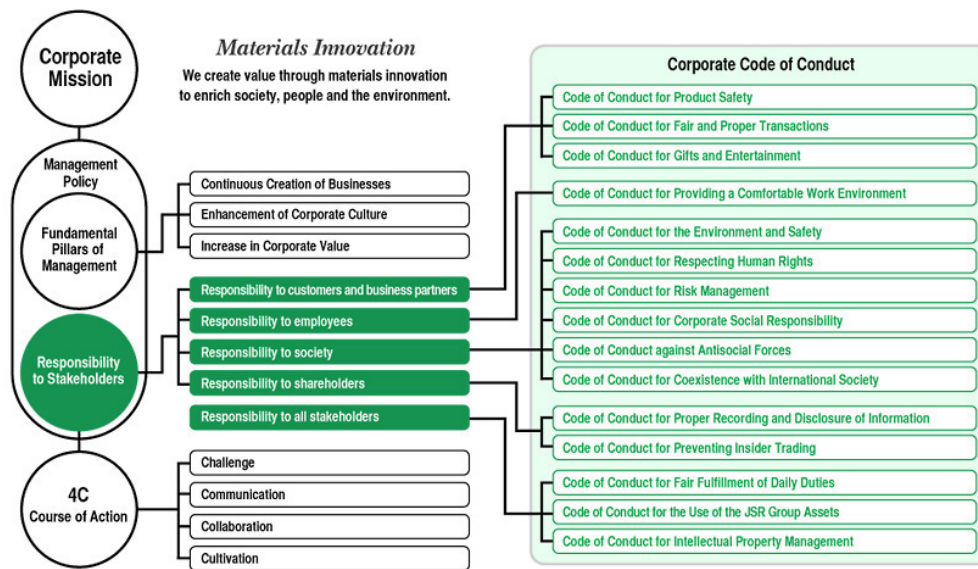
The JSR Group has been endeavoring, by building up and maintaining good relationships with all our stakeholders, to become a trustworthy and indispensable corporate citizen.

We have been vigorously executing our Code of Conduct in order to fulfill "Our Responsibility to our Stakeholders", an essential part of our Management Policies, as well as to ensure compliance with relevant laws and regulations during the course of our business.

2. JSR Group Principles of Corporate Ethics

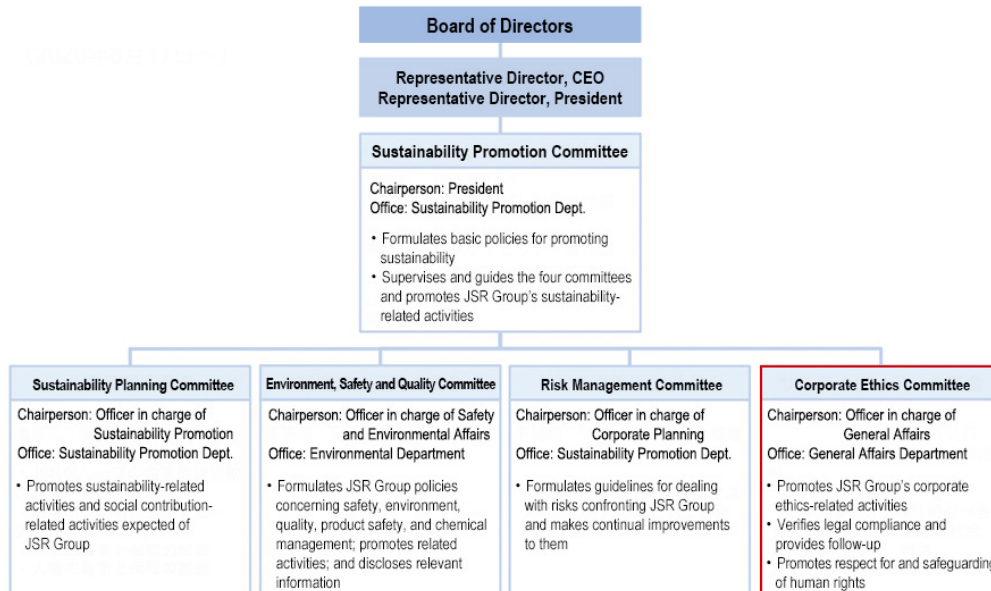
The JSR Group is advancing corporate ethics activities in an integrated manner at all Group companies, both in Japan and other countries. To achieve this, we have formulated the JSR Group Principles of Corporate Ethics as a concrete guideline for globally-shared corporate ethics that reflects our "Essential Elements". The principles serve as a Code of Conduct that all directors and employees (full-time, contract, part-time, and temporary employees as well as employees on short-term contracts) of JSR companies should comply with to develop our corporate activities while fulfilling the management policies spelled out in "Our Responsibility to our Stakeholders".

The JSR Group shall never require directors and employees of Group companies to violate this Code of Conduct. Additionally, the JSR Group shall not disadvantage any director or employee who refuses to execute an order to violate the Code of Conduct because of that refusal.



3. Advancement Structure

The Corporate Ethics Committee of JSR is responsible for advancing Group-wide activities, such as promotion of corporate ethics activities, monitoring and enhancing legal compliance, and promotion of respecting and safeguarding human rights.



4. Corporate Ethics Activities

The JSR Group has been pursuing the following 3 major corporate ethics activities:

(1) Publication and Education of JSR Group Principles of Corporate Ethics

The JSR Group formulated the JSR Group Principles of Corporate Ethics to serve as a globally-shared Code of Ethics. By preparing English, Simplified and Traditional Chinese, Korean and Thai versions in addition to the Japanese version, we are ensuring that directors and employees at all Group companies can become acquainted with the JSR Group Principles of Corporate Ethics in their native language or in a language in which they are proficient.

Moreover, each year we provide an e-learning program on the Principles of Corporate Ethics for all employees of JSR Group companies in Japan. We incorporate the themes of confidential information management, prevention of abuse of power, and prevention of data falsification into the program. We also conduct corporate ethics training for each stratum, such as new recruits and newly promoted managers. With regard to harassment education, we conduct management training on bullying and harassment reports and the handling of actual cases for high-ranking and managerial positions.

JSR Group Principles of Corporate Ethics (Revised on Jan. 1, 2021)

- > [Japanese \(PDF 3,163KB\)](#) [PDF](#)
- > [English \(PDF 1,745KB\)](#) [PDF](#)

- > [Simplified Chinese \(PDF 3,142KB\)](#) [PDF](#)
- > [Traditional Chinese \(PDF 3,946KB\)](#) [PDF](#)
- > [Korean \(PDF 3,038KB\)](#) [PDF](#)
- > [Thai \(PDF 3,882KB\)](#) [PDF](#)

(2) Corporate Ethics Awareness Survey

The JSR Group works to grasp and improve corporate ethics-related issues by conducting annual surveys on corporate ethics awareness that target the directors and employees of JSR Group companies in Japan and other countries. The results are reported at the Corporate Ethics Committee and then to an Officers Committee. They are subsequently fed back to employees as a post in a summarized form on the company intranet, together with a message from the assigned officer explaining issues and other matters gleaned from the results. Some overseas Group companies also strive to build awareness of corporate ethics and legal compliance among their employees, including their locally hired employees, using methods that are appropriate for the local culture.

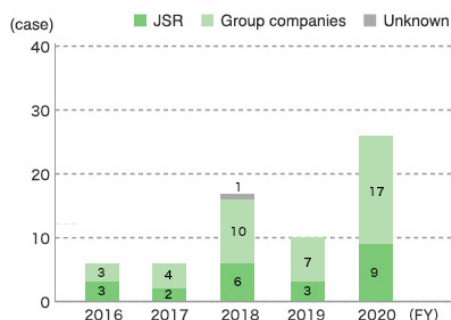
(3) Hotline (Internal Reporting Channels)

1) Hotline for Employees

The JSR Group has introduced a system of internal reporting channels called the "Corporate Ethics Hotline". The "internal hotline" is connected to the Corporate Ethics Committee in JSR or the relevant Group company. The "external hotline" is set up to connect to two contact points. One is a designated independent attorney. The other is an independent and specialized outside organization capable of handling communication in 16 languages, including Japanese, English, Chinese, Korean, Thai, and Indonesian. This system is designed to facilitate use even by overseas employees. Reports made to the external hotline are also simultaneously reported to full-time auditors, and independence from management is ensured. We encourage our employees to use these hotlines through promotions via internal newsletters and other media. We strive to build trust in the hotlines by ensuring confidentiality and prohibiting unfair treatment of hotline users.

We also hold yearly meetings between the corporate ethics officers of domestic Group companies and JSR's Corporate Ethics Committee for the purposes of getting all Group companies in Japan on the same page and tackling ethics-related issues. Furthermore, we post and display guides for accessing the hotlines on the company intranet and online internal newsletters to make the hotlines easier to use.

State of Use of JSR Group's Hotline (Number of Reports)



For each report that comes in, the office of the Corporate Ethics Committee in the company concerned asks the relevant department to ascertain the facts. The office then discusses and decides on responses based on the department's findings, and later follows up on the results. If the reporter desires feedback, the contact point that initially received the report contacts him/her with the results as well as the responses taken.

Twenty-six reports were received during FY2020. Of them, fourteen involved abuse of power.

2) Suppliers' Hotline

JSR employs at its Procurement Department a "Suppliers' Hotline", an external reporting channel for business partners, namely suppliers and services providers, with whom domestic Group companies do regular business. It receives reports from business partners to quickly discover and resolve violations of the law as well as actual and possible violations of corporate ethics in business transactions. Hotline services are entrusted to the same outside organization employed for the employees' hotline. Efforts are being made toward improving reliability, by thoroughly enforcing strict secrecy of reports and prohibiting handling of reports that would be disadvantageous to those reporting something.

Since its introduction in FY2014, there have been no reports made using the Suppliers' Hotline.

5. Legal Compliance Measures

Every JSR Group member defines legal compliance regulations that form the basis of its legal compliance. Each company then uses the regulations to solidify its compliance through regular review and improvement as well as legal training to increase awareness of laws and regulations and instill commitment to compliance. JSR Group establishes specific systems

and executes other priority approaches to ensure compliance with laws and regulations that are particularly relevant to the execution of business.

1) Approach to Preventing Bribery and Unfair Competition

JSR has formulated "Policy for Bribery Prevention", "Rules on Complying with Anti-Corruption Laws" and "Standards for Gift-Giving and Entertaining" that specify necessary items for all executives and employees to comply with the Unfair Competition Prevention Act in Japan, Foreign Corrupt Practices Act in the U.S., Bribery Act in the U.K. and other anti-corruption laws when performing their tasks, based on the JSR Group Principles of Corporate Ethics and laws and regulations that require compliance. With regard to due diligence of third parties, such as an important proxy, in preventing bribery, JSR has specified "Due Diligence Guideline for Proxies, etc.". In line with this, JSR strives to reduce the risk of bribery by conducting surveys through self-checks and external databases.

> [JSR "Policy for Bribery Prevention" \(PDF 33KB\)](#) 

In addition, JSR has also formulated "Rules on Antimonopoly Law" (Japan), "Rules on Complying with U.S. Antitrust Laws", "Rules on Complying with the EU's Antitrust Laws and "Rules on Complying with Korean Fair Trade Laws" that specify items necessary for complying with each country's antimonopoly (antitrust) laws.

Participation in global incentives

JSR participates in the Corruption Prevention subcommittee of the Global Compact Network Japan (GCNJ), a local network for the UN's "Global Compact". In this subcommittee, various activities are carried out, such as lectures with invited experts, exchange of information related to measures for preventing corruption among participating companies, etc. Through these activities, JSR explores, examines and implements effective and ideal corruption prevention measures that are suitable for the JSR Group.

Corruption prevention measures have a strong compliance system advancement aspect of complying with relevant laws of each country. At the same time, the foundation of such measures is closely linked to global social issues related to human rights, labor and the environment. In addition to continuing to implement effective corruption prevention measures, JSR searches for ideal forms of such measures.

2) Approach to Taxes (Philosophy)

The JSR Group understands that carrying out appropriate tax payments and tax management that follows relevant laws and regulations of each country fulfills an important role in the economic and social development of each country and is linked to supporting and earning the trust of all stakeholders.

The JSR Group is engaged in taxes by supporting the following philosophy as provided by the Chief Financial Officer (CFO). "JSR Group will comply with the taxation laws of each country in which it does business, including regarding transfer pricing and tax havens."

(1) Reviewing and Improving Legal Compliance

Based on legal compliance regulations, the JSR Group designates laws and regulations that are important in the execution of business as Overall Significant Laws and Legal Regulations. Each year, the Group regularly verifies its compliance by self-checking whether the business operations of all Group companies conform with the Overall Significant Laws and Legal Regulations. The regular sharing of information on cases of non-compliance within the JSR Group is useful in preventing legal violations and quickly detecting and improving non-compliant situations. It also helps improve awareness of compliance.

(2) Training and Increasing Awareness

1) Compliance Handbook

The Group is thoroughly publicizing important points that demand legal compliance among employees in Japan, South Korea, and China by issuing Japanese, Korean, and Chinese versions of JSR's Compliance Handbook. The Chinese version is issued to not only Group companies in China but also JSR departments and Group companies that sell products, supply samples, or otherwise engage in business dealings with Chinese enterprises. Through it, we are working to ensure thorough understanding and practice of legal compliance in China.

We revised the Compliance Handbook's Japanese version in FY2017 and redistributed to employees in April 2018. The revision covered contents pertaining to recent cases of data falsification and fabrication at other companies and revisions of related laws.



Compliance Handbook

2) Seminars and E-Learning

We hold periodic seminars and provided e-learning programs for directors and employees of all JSR companies as part of legal education to ensure full organizational knowledge of laws demanding compliance. The main seminars held in FY2020 were as follows.

January: Seminar on Antitrust Act in Japan

March: Export Control seminar

We provide e-learning on the Antitrust Act in Japan, export control, anticorruption-related laws, and corporate ethics.

We also provide legal education that has been customized to meet the requirements of individual departments and Group members. This includes individualized education for employees being sent to new assignments (training on the Antitrust Act in Japan, anticorruption laws, etc.). We also hold chemical substances seminars at various locations in Japan and, as part of them, provide education on domestic laws (Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. in Japan, Industrial Safety and Health Act in Japan, Poisonous and Deleterious Substances Control Act in Japan, etc.) and foreign laws.

6. Protection of Personal Information

The JSR Group recognizes the importance of protecting personal information under the circumstances of highly advanced information and communication technologies. We have therefore formulated a Privacy Policy and Rules for Handling Personal Information that sets out our approach to the acquisition, use, and management of personal information based on the Act on the Protection of Personal Information in Japan. We have also established Rules for Handling Specific Personal Information in response to the introduction of Japan's Individual Number system. Moreover, in accordance with relevant laws and our privacy policy, we ensure appropriate handling of specific personal information in the company by defining precautions and security standards necessary to ensure the proper use and protection of this information at each of the stages of acquisition, storage, use, provision, disclosure, correction, suspension of use, and deletion.

Furthermore, for Group companies that handle personal data covered by the EU's General Data Protection Regulation (GDPR), we are providing support for the development and operation of a GDPR compliance system to be applied to the acquisition, processing, and transfer of covered personal data.

7. Approaches toward Information Security

JSR Group adopted an Information Security Policy and is working to implement appropriate information management by informing all personnel of the policy.

Information Security Policy

- The JSR Group, by complying with laws and regulations and by observing other social norms relating to the handling of information, will protect information that belongs to the JSR Group, its customers, business partners and other third parties.
- The JSR Group strives to develop and actively use its information assets for the efficient execution of its business. The Group's officers and employees will only use these information assets for the purposes of their work and within the scope of their authority.
- The JSR Group improves organizations and systems, provides education on information security, thoroughly disseminates this policy and related regulations, and implements measures to ensure information security.
- The JSR Group implements appropriate human, organizational, and technological measures and works to prevent unauthorized access to information assets from outside the company, as well as leaks, falsification, loss, theft and destruction of information assets.
- If an information security-related problem occurs, the JSR Group will promptly identify the cause and take measures to minimize damage and prevent recurrences.
- The JSR Group periodically assesses and reviews its information security measures to respond appropriately to changes in external environments.

The JSR Group is continually working together with external experts to increase our level of security and protect corporate information assets from cyber-attacks. In FY2014, we issued an Information Security handbook to raise employee sensitivity to information leakage risks and to help ensure that employees are aware of and follow rules regarding information security. We also conduct targeted attack drills using fake viruses to raise prevention awareness. In addition, we are engaged in raising awareness of the content in the Information Security handbook through e-learning and workplace meetings.

Additionally, we established a new Cyber Security Management Office in August 2019 to strengthen our information security management (including that of Group companies) and improve employee training and enlightenment as well as employees' ability to respond to incidents.



Information security handbook



<ul style="list-style-type: none"> ▼ 1. Philosophy
<ul style="list-style-type: none"> ▼ 2. Risk Management System
<ul style="list-style-type: none"> ▼ 3. Risk Management Measures <ul style="list-style-type: none"> (1) Identifying Risks and Selecting Important Risks (2) BCM (Business Continuity Management) <ul style="list-style-type: none"> 1) Formulation and Operation of BCM Procedures 2) Major Earthquake Preparations (3) Enhancement of Initial Response to Emergencies <ul style="list-style-type: none"> 1) Crisis Management Training 2) Disaster Management Training at each plant and laboratory 3) Safety Confirmation System 4) Infection Preparedness 5) Responses to Legal Risks and Compliance Risks

1. Philosophy

JSR Group believes that preventing major crises from occurring and minimizing their impacts on business activities is a key part of management. The Group has formulated Risk Management Policies and established a Risk Management Committee through which it actively pursues risk management activities.

➤ [Basic Views and Policies Related to JSR's Corporate Governance](#) 

2. Risk Management System

JSR Group manages risk by largely classifying it into two types: risk related to business strategies and risk related to business operations.

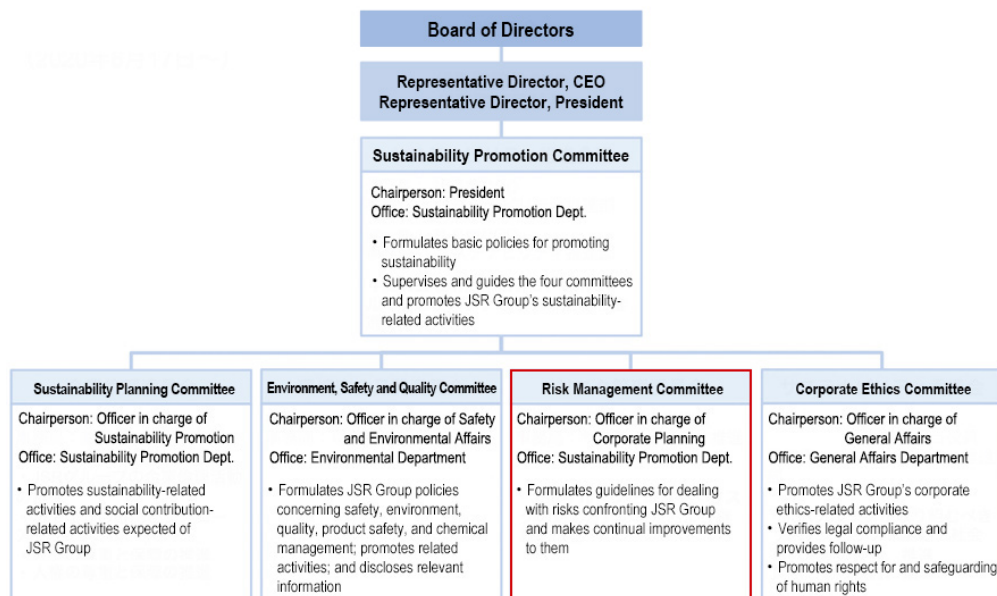
For risk related to business strategies,* we engage in risk management through deliberations and decisions made in important meetings, such as those of the Board of Directors, Executive Committee, and Business Issues Committee. Please click on the following link for the roles of each committee and other details.

* Risks associated with doing business include strategic risks concerning capital investment and M&As that are discussed at Board of Directors meetings and other important meetings.

➤ [JSR's Corporate Governance Report \(PDF 993KB\)](#) 

For risk related to business operations, we establish Risk Management Policies and engage in risk management centered on the Risk Management Committee.

The risk management system is incorporated into the internal control system. The status of the internal control system's execution is reported to the Board of Directors. JSR has a Corporate Audit Department that continuously verifies and evaluates the preservation and operation of internal control for the entire JSR Group as required by the Companies Act and Financial Instruments and Exchange Act. It also ensures that risk in existing business does not exceed permissible levels. The department additionally maintains and strengthens internal control levels for the entire Group and conducts internal audits to ensure the appropriate and efficient execution of operations.



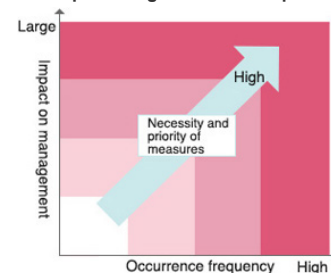
3. Risk Management Measures

(1) Identifying Risks and Selecting Important Risks

Since FY2009, JSR Group has fulfilled group-wide annual risk management procedures using its unique risk management system under the initiative of the Risk Management Committee. For each division of JSR Group companies in and outside of Japan, we identify and evaluate all potential risks, and formulate measures to control such risks.

Utilizing a risk map that represents level of business impact and frequency of occurrence, we identify risks that could have a significant impact on business continuity and organize them risks into the JSR Group Risk Factors. We build and maintain a system for prevention and crisis preparedness by monitoring and regularly reviewing the risks that senior management has identified.

Conceptual diagram of risk map



Click on the following link for information on the risks that could impact on JSR Group's business performance, financial standing, cash flow, etc.

[JSR Group Business and Other Risks \(PDF 132KB\)](#) [PDF](#)

(2) BCM (Business Continuity Management)

1) Formulation and Operation of BCM Procedures

JSR has formulated BCM procedures that summarize the BCM/BCP* systems in place for both peacetime and emergency situations. These procedures define the BCM organization and the actual BCP, which includes stipulations on target recovery times, and BCP activation and cancellation standards. They also define the organizational structure that takes effect during activations of the BCP, and corresponding priority businesses and operations.

Moreover, we maintain a stable supply of funds on hand to allow us to manage our businesses flexibly if a major risk arises. We also acquire issuer ratings and commercial paper ratings from rating agencies each year. JSR's ratings are available on rating agencies' websites as well as the JSR website.

Amid concerns of a global economic slowdown resulting from the COVID-19 pandemic, we issued three types of unsecured straight bonds with a total value of 35 billion JPY on May 28, 2020.

* BCM: Business Continuity Management/BCP: Business Continuity Plan

A BCP defines activities to be conducted in anticipation of emergencies that could threaten a company's survival (such as a large-scale natural disaster, explosion/fire, or terrorist attack), judgment criteria and action guidelines that enable business continuity in the event of such emergencies, and other matters necessary for ensuring the continuity and early restoration of important businesses. BCM is a management system that operates and continuously improves the BCP through the PDCA (plan-do-check-act) cycle.

2) Major Earthquake Preparations

JSR Group adopted a mid-term business plan in FY1995 concerning preparations for a major earthquake and has been conducting systematic activities to enhance those preparations. After FY2006, we began a seismic retrofitting project focused on high-pressure gas facilities in our plants, and installed an earthquake early-warning system at all JSR business sites. Based on lessons learned from the experience of the Great East Japan Earthquake, we are systematically reinforcing the aseismic capabilities of our buildings and implementing safety measures that include tsunami countermeasures. We completed aseismic retrofitting of our spherical tank braces in FY2020.

(3) Enhancement of Initial Response to Emergencies

1) Crisis Management Training

Once a year since 2004, JSR holds crisis management training with the participation of “headquarters for accident and crisis control” members.

In FY2021, we conducted a general review of the Group's COVID-19 business continuity plan (BCP) from January to June 2020 with the cooperation of an external expert organization and identified areas for improvement. We verified that, by and large, appropriate and timely responses to the pandemic are being made throughout the Group.

By conducting drills that anticipate a variety of potential disasters, we will continue to make the preparations needed to ensure safety, control damage, maintain business continuity.

2) Disaster Management Training at Each Plant and Laboratory

JSR Group conducts disaster management and evacuation training and drills on a regular basis. FY2020 is no exception. While implementing measures to combat COVID-19 infections, we are holding drills that simulate disasters at each of our business bases to minimize the impacts of emergencies and improve our ability to ensure business continuity.



Drill to identify locations of fire with a drone at the JSR Yokkaichi Plant

3) Safety Confirmation System

In FY2009, JSR introduced a safety verification system that uses employees' mobile phones and smartphones. The system can promptly ascertain the safety of employees in the event of a large-scale earthquake or other disasters. In FY2011, we began expanding the system's coverage to include domestic Group companies and the families of JSR employees. Training using this system is conducted regularly, and JSR is prepared for large-scale and wide-area disasters.

4) Infection Preparedness

We stockpile masks in preparation for an epidemic of influenza or another infectious disease. We sent masks and other protective equipment to all of our business bases in response to the COVID-19 pandemic that began in January 2020. We endeavored to minimize the pandemic's effects on manufacturing, R&D, distribution, and other Group business activities that support the world's key industries.

We also provide necessary information such as the announcement of flu outbreaks. To prevent flu infections from spreading in our workplaces and to also make sure that the cases of influenza that do occur stay minor, we invited doctors and nurses to JSR's Head Office and the Yokkaichi, Chiba, and Kashima Plants to administer vaccinations to those who desired one.

5) Responses to Legal Risks and Compliance Risks

Click on the following link for information on our responses to legal risks and compliance risks.

> [Compliance](#)

Response to COVID-19

In February 2020, as the coronavirus spread, JSR Group launched a “COVID-19 BCP (Business Continuity Plan) Task Force.” Headed by the President, the task force took the lead in implementing various measures built on recognition that the Group is an important player in a materials industry that supports key industries around the world. Those measures included establishing a code of conduct for maintaining operations at important manufacturing and R&D centers of the Group in Japan, Asia, Europe, and the United States; enforcing the supply of protective equipment and its use; stopping visits from outside personnel; sharing information with employees throughout the world; and establishing work-from-home environments at all business bases. The details of the task force's activities are shared with outside directors and auditors.

The task force was temporarily disbanded when the pandemic's spread entered a temporary lull in mid-June. However, after it became apparent in October that COVID-19 cases were again spreading worldwide, it was decided to reconvene the task force in mid-November. It continues to gather and share various forms of information.

While respecting cultural differences and individuality of JSR business bases around the globe, we are striving to manage the crisis and maintain our business by engaging in speedy and integrated information management within the BCP Committee and linking it to appropriate action.



Communication with Stakeholders

- ▼ 1. Philosophy
- ▼ 2. Examples of communication with stakeholders

1. Philosophy

In our management policy, the JSR Group specifies "Responsibilities toward Stakeholders", which expresses our responsibilities as a member of society. We are promoting approaches that contribute to all stakeholders, including customers/business partners, employees, society/environment and shareholders.

As a result, as a concrete guideline that is common throughout our global sites, we have established the "JSR Group Company's Code of Ethics". Each employee is making approaches toward resolving challenges while valuing bi-directional dialogues with stakeholders, based on shared, fundamental values such as a corporate philosophy, management policy, behavioral guideline, etc.

> [The JSR Group's Essential Elements](#)

2. Examples of communication with stakeholders

Stakeholder	JSR Group's Responsibility	Main methods / opportunities for dialogue
Customers / Business Partners	<ul style="list-style-type: none"> ■ Never cease to challenge changes and evolve, to support the diverse material needs of the ever-changing times. ■ Aim for sustainable improvement of customer satisfaction. ■ Approach all business partners with sincerity, and always continue maintaining fair and equitable business relations. ■ Continue considering the environment and society in supply chains. 	<p>Customers</p> <ul style="list-style-type: none"> ● Received the Meritorious Service Award from Samsung Display ● Communication through sales activities such as the publication of a market report ● Providing information through SDS (safety data sheet), website, etc. ● Quality Assurance Support ● Implementation of customer satisfaction surveys ● Support of CSR surveys from customers <p>Business Partners</p> <ul style="list-style-type: none"> ● Communication through purchasing activities such as Partner Awards ● Support of CSR surveys from business partners ● Distribution of JSR Group CSR procurement policy ● Supplier hotline
Employees	<ul style="list-style-type: none"> ■ Evaluate each employee based on fair standards. ■ Provide opportunities for employees to constantly challenge themselves. ■ Continue providing opportunities for employees to mutually recognize each others' personalities and diversity, and to flourish together. 	<ul style="list-style-type: none"> ● Labor-Management council and workplace meetings ● Commendation system ● Employee awareness survey ● Various training programs (stratified education, technical training, etc.) ● Corporate climate reform activities (interactive education, OJT promotion)

		<p>activities, communication improvement activities, etc.)</p> <ul style="list-style-type: none"> ● Activities to promote sustainability and Responsible Care
Local / Society	<ul style="list-style-type: none"> ■ As a responsible member of local society, continue carrying out business activities that take the environment and safety into consideration (responsible care). ■ Continue providing environment-conscious products that support the needs for global environmental conservation, including reduction of local environmental burdens. ■ Make efforts to reduce environmental burdens that are generated from the product lifecycle as a whole, and continue making considerations to the environment and safety. ■ Continue actively contributing to the preservation of biodiversity through business activities. 	<ul style="list-style-type: none"> ● Participation in local responsible care dialogues (at plants) ● Local cleanup activities (plants, research labs) ● Participation in environmental conservation activities, such as beach clean-ups and forest preservation ● Participation in visiting lectures at schools and in projects to develop skilled workers ● Participation in social welfare activities (blood donation, fundraising activities, etc.) ● Contribution towards disaster areas, support for employee volunteer activities
Shareholders / Investors	<ul style="list-style-type: none"> ■ Create business opportunities through materials and aim to expand corporate value. ■ Constantly improve management efficiency. ■ Become a company that is trusted by shareholders, through highly-transparent and robust corporate management. 	<ul style="list-style-type: none"> ● General Meeting of Shareholders ● Corporate strategy meeting, financial results briefing, individual meetings with investors and analysts ● Publication of JSR Report (Integrated Report) ● Publication of corporate governance report ● Provision of information through websites

> For details on social contribution activities, click [here](#)



▼ 1. Editing Concept
▼ 2. Positioning of this Report
▼ 3. Referenced Guidelines
▼ 4. Target Period and Fiscal Year
▼ 5. Operations Covered
▼ 6. Notes concerning Notations
▼ 7. Independent Review
▼ 8. Publication Information

1. Editing Concept

• Where JSR aims to go

Under the corporate mission of “Materials Innovation - We create value through materials to enrich society, people and the environment,” the JSR Group aims to build and maintain good relations with all of our stakeholders and become a trusted and indispensable corporate citizen. To this end, the Group will contribute to the realization of a sustainable global environment and society by creating value through its corporate activity and based on this corporate mission.

• From CSR to sustainability

At the General Meeting of Shareholders held in June 2020, JSR decided to evolve to its traditional “corporate social responsibility” (CSR) activities into activities that contribute to all stakeholders with value created through corporate activity. Such activities are now referred to as “sustainability” activities. Accordingly, the department responsible for these activities, the CSR Department, was also renamed the Sustainability Promotion Department. JSR’s first female director was assigned to head the newly named department as its assigned officer. In this Sustainability Report, sustainable approaches are comprehensively described, with all stakeholders as the target audience.

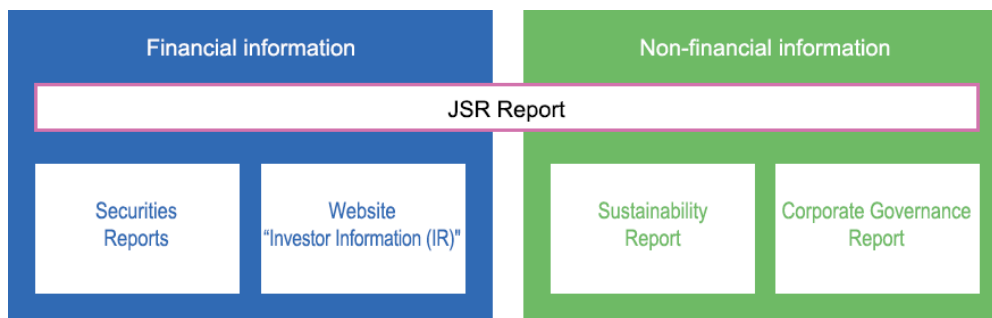
• About the report

In continuation of the previous year, we edited the report while being impacted by the spread of COVID-19. At the same time, the new medium-term management policy was announced in March 2021, putting the digital solutions business and life sciences business in the spotlight. In May 2021, it was announced that the elastomers business would be transferred outside of the company. FY2021 became a year of business transformation for sustainable growth. In this report, we endeavored to communicate JSR’s initiatives in FY2020, the period that we targeted in the report, to stakeholders in an easily understandable manner based on conventional boundaries.

The report contains a message from the officer in charge of sustainability promotion as well as an account of materiality (priority issues) arranged in terms of ESG (environment, social, governance) to assist the reader in comprehending JSR’s sustainability as a whole. We also present related numerical data in the ESG Data section. Please note that we will not publish a Highlight Version.

2. Positioning of this Report

The “JSR Group Sustainability 2020” provides comprehensive coverage of non-financial information.



Please access Report Archive for past websites and publications.

> [Report Archive](#)

Please visit the JSR website for details on products and services, financial information, etc.

> [JSR Website: Home Page](#)

3. Referenced Guidelines

- United Nations Guiding Principles on Business and Human Rights
- Environmental Accounting Guidelines 2005 / Environmental Reporting Guidelines 2012, Ministry of the Environment
- Environmental Accounting Guidelines for Chemical Companies, Japan Chemical Industry Association (JCIA)
- Global Reporting Initiative (GRI) Standards

> [GRI Guidelines Comparison Table \(PDF 404KB\)](#) [PDF](#)

4. Target Period and Fiscal Year

- April 1, 2020 to March 31, 2021

Please note that some sections include activities conducted during periods that are other than that provided above.

FY: Fiscal Year means the year starting April 1st.

5. Operations Covered

- **The entire report**

JSR Group: 66 companies

JSR: Head Office, Yokkaichi Plant, Chiba Plant, Kashima Plant, Yokkaichi Research Center, Tsukuba Research Laboratories, JSR-Keio University Medical and Chemical Innovation Center, Nagoya Branch, Taiwan Branch

Group Companies: 24 domestic Group companies, 41 overseas Group companies
(Current as of March 31, 2020)

- **RC data (environment, safety, health)**

JSR Group: 20 companies

JSR: Head Office, Yokkaichi Plant, Chiba Plant, Kashima Plant, Yokkaichi Research Laboratories, Tsukuba Research Laboratories, Nagoya Branch

Group Companies: 8 domestic Group companies, 11 overseas Group companies*
(Current as of March 31, 2021)

* For information about Group companies that collected RC data, see "ESG Data: JSR Group Companies." [PDF](#)

"JSR" and "JSR Group" are classified as follows:

JSR Group: JSR and Group companies

JSR: JSR Corporation

6. Notes concerning Notations

- Definitions of business activity, management foundation, and corporate activity

Corporate activity : Activity that combines business activity and the management foundation

Business activity : Activity that provides products and services

Management foundation : Activities of departments associated with company operation and of manufacturing departments

- **About numerical data**

For both absolute values and percentages, numerical values that fall below the shown number of digits are rounded off. For this reason, the sums of individual numbers may differ from the sum values provided.

7. Independent Review

The JSR Group undergoes independent reviews from the Responsible Care Verification Center of the Japan Chemical Industry Association. Additionally, the entire report is approved by the Sustainability Promotion Committee before publication.

Scope of review: All notations in the "JSR Group Sustainability Report 2020" pertaining to the environment and industrial safety/accident prevention (including ESG Data)

> [Evaluation by Outside Organization and Independent Review](#)

8. Publication Information

Date of publication: October 2021
Next scheduled issue: October 2022
(Previous issue: October 2020)



- ▼ 1. Evaluation by Outside Organization
- ▼ 2. Independent Review

1. Evaluation by Outside Organization

(1) Inclusion in ESG indexes, socially responsible investment (SRI) indexes and investment universes (current as of July 1, 2021)

JSR Group is highly regarded for its sustainability activities and other non-financial initiatives. The Group's reputation is reflected in its inclusion in international socially responsible investment indexes and investment universes. Additionally, the Group has been selected for inclusion in three ESG indexes selected by the Government Pension Investment Fund (GPIF): the FTSE Blossom Japan Index, and MSCI Japan Empowering Women Index (WIN), S&P / JPX Carbon Efficient Index.



We were selected as an investment brand of the "FTSE Blossom Japan Index" for being a Japanese company with excellent consideration for ESG (Environment, Social, and Governance)



We were selected by MSCI as an investment brand of the "MSCI Japan Empowering Women Index (WIN)" for being a company with excellent gender diversity.



We were selected for inclusion in the S&P/JPX Carbon Efficient Index by the S&P Dow Jones Index.



For 16 consecutive years since 2004 we have been selected by FTSE Russell as a constituent of the FTSE4Good Index Series.



We are included in the MSCI ESG Leaders Indexes as a company with outstanding ESG (environment, social, governance) performance.



In recognition of our standing as a company with a high ESG (Environment, Social, and Governance) evaluation, we were reconfirmed by Sompo Asset Management Co., Ltd. as a brand for investment to be included in the SOMPO Sustainable Index.

Additionally, JSR Group has continually been ranked in the Global Compact 100 since FY2013.

* The inclusion of JSR Corporation in MSCI indexes, as well as the use of the MSCI logo, trademark, service mark and index name, does not constitute support, endorsement, or promotion of MSCI or any MSCI-affiliated company by JSR Corporation. MSCI indexes are the sole property of MSCI.

MSCI and all MSCI index names and logos are the trademark or service mark of MSCI and its affiliated companies.

(2) Evaluation by non-ESG evaluation organizations



2021 Certified Health and Productivity Management Organization Recognition Program (SME Category)
 JSR Micro Kyushu Co., Ltd., Elastomix Co., Ltd., Japan Coloring Co., Ltd., JSR Logistics & Customer Center Co., Ltd., and JSR Health Insurance Society, all of which are JSR Group companies, were certified in the program's SME Category.

2. Independent Review

JSR Group undergoes independent reviews from the Responsible Care Verification Center of the Japan Chemical Industry Association.

Scope of review: All notations in the "JSR Group Sustainability Report 2021" pertaining to the environment and industrial safety/accident prevention (including ESG Data)

> [Click here for the Independent Review Report \(PDF 603KB\)](#) 



▼ 1. JSR Group Sustainability Reports
▼ 2. JSR Micro, Inc. CSR Report
▼ 3. JSR Micro N.V. CSR Report
▼ 4. JSR Plant Responsible Care Reports

1. JSR Group Sustainability Reports

The name of the report was changed to Sustainability Report in 2020. A Highlight Version will not be published.

JSR Group Sustainability Reports 2021(April 1, 2020 - March 31, 2021)

> [Website](#)



JSR Group Sustainability Reports 2020(April 1, 2019 - March 31, 2020)

> [Website](#)

CSR Report 2019(April 1, 2018 - March 31, 2019)

> [Detailed Version Website](#)

> [Highlight Version \[Two-Page Spread Type\].\(PDF 4.6MB\)](#) [PDF](#)

> [Highlight Version \[A4-Size Page Type\].\(PDF 4.6MB\)](#) [PDF](#)

CSR Report 2018 (April 1, 2017 - March 31, 2018)

> [Detailed Version Website](#)

> [Highlight Version.\(PDF 5.7MB\)](#) [PDF](#)

CSR Report 2017 (April 1, 2016 - March 31, 2017)

> [Online Version](#)

> [Highlight Version.\(PDF 4.8MB\)](#) [PDF](#)

CSR Report 2016(April 1, 2015 - March 31, 2016)

> [Online Version](#)

> [Print Version.\(PDF 4.6MB\)](#) [PDF](#)

CSR Report 2015(April 1, 2014 - March 31, 2015)

- > [Online Version](#)
- > [Highlight Version \(PDF 6.7MB\)](#) [PDF](#)

CSR Report 2014 (April 1, 2013 - March 31, 2014)

- > [Online Version](#)
- > [Print Version \(PDF 11.5MB\)](#) [PDF](#)

CSR Report 2013(April 1, 2012 - March 31, 2013)

- > [Online Version](#)
- > [Print Version \(PDF 5.1MB\)](#) [PDF](#)

CSR Report 2012(April 1, 2011 - March 31, 2012)

- > [Online Version](#)
- > [Print Version \(PDF 5.7MB\)](#) [PDF](#)

2. JSR North America Holdings, Inc. CSR Report

Since 2020, JSR North America Holdings, Inc. has published a CSR report.



- > [JSR North America Holdings, Inc. CSR Report 2020 \(PDF 2.6MB\)](#) [PDF](#)

- > [JSR Micro, Inc. CSR Report 2018 \(PDF 2.7MB\)](#) [PDF](#)
- > [JSR Micro, Inc. CSR Report 2016 \(PDF 5.1MB\)](#) [PDF](#)
- > [JSR Micro, Inc. CSR Report 2014 \(PDF 4.5MB\)](#) [PDF](#)
- > [JSR Micro, Inc. CSR Report 2012 \(PDF 8.0MB\)](#) [PDF](#)

3. JSR Micro N.V. CSR Report



- > [JSR Micro N.V. CSR Report 2019 \(PDF 1.9MB\)](#) [PDF](#)

- > [JSR Micro N.V. CSR Report 2017 \(PDF 0.8MB\)](#) [PDF](#)
- > [JSR Micro N.V. CSR Report 2015 \(PDF 4.3MB\)](#) [PDF](#)

4. JSR Plant Responsible Care Reports

Responsible care report of each Plant (Japanese only)

- > [Yokkaichi Plant Responsible Care Report](#)
- > [Chiba Plant Responsible Care Report](#)
- > [Kashima Plant Responsible Care Report](#)



Corporate Information
JSR Group Profile

▼ 1. JSR Profile
▼ 2. JSR Group's Major Business
▼ 3. JSR Group's Major Business Establishments, Plants.
▼ 4. JSR Group Companies
▼ 5. Financial Information

1. JSR Profile (as of March 31, 2021)

Company name	JSR Corporation
Established	December 10, 1957
Head office	Shiodome Sumitomo Building, 1-9-2 Higashi-Shimbashi, Minato-ku, Tokyo, Japan
Representative Director and CEO	Eric Johnson
Representative Director, President and COO	Nobuo Kawahashi
Capital	23,370 million yen
Number of employees (consolidated)	9,383

2. JSR Group's Major Business (as of March 31, 2021)

The manufacture and sale of the following products

Type of business		Main products
Digital Solutions Business	Semiconductor Materials	Lithography materials (photoresists and multi-layered materials), packaging materials, cleaning solutions, CMP materials.
	Display Materials	Color liquid crystal display (LCD) materials, organic electroluminescence display materials.
	Edge Computing	Heat-resistant transparent resin, functional films, stereolithography, photo molding.
Life Sciences Business		Services to support drug discovery, diagnostic/research reagents and materials, bioprocess materials
Elastomers Business	Synthetic rubbers	Styrene-butadiene rubber, butadiene rubber, ethylene-propylene rubber and other synthetic rubbers and refined processed products
	Thermoplastic elastomers	Thermoplastic elastomers and related processed products
	Emulsions	Latex for paper processing, general industrial-use latex, acrylic emulsion, high-performance dispersants, industrial particles, materials for heat-shielding, battery materials.
	Other	Chemical products such as butadiene monomers

Plastics Business	Synthetic resins such as ABS resin, AES resin, AS resin, and ASA resin
Other Businesses	Purchasing and selling of chemicals.

3. JSR Group's Major Business Establishments, Plants. (as of March 31, 2021)

(1) JSR

Head office	1-9-2 Higashi-Shimbashi, Minato-ku, Tokyo, Japan		
Branches	Nagoya Branch	Nagoya City, Aichi Prefecture	
Plants	Yokkaichi Plant	Yokkaichi City, Mie Prefecture	
	Chiba Plant	Ichihara City, Chiba Prefecture	
	Kashima Plant	Kamisu City, Ibaraki Prefecture	
Research centers and laboratories	Yokkaichi Research Center	Performance Polymer Research Laboratories	Yokkaichi City, Mie Prefecture
		Display Solution Research Laboratories	Yokkaichi City, Mie Prefecture
		Fine Electronic Materials Research Laboratories	Yokkaichi City, Mie Prefecture
		Edge Computing Research Laboratories	Yokkaichi City, Mie Prefecture
	Tsukuba Research Laboratories	Tsukuba City, Ibaraki Prefecture	
	JSR-Keio University Medical and Chemical Innovation Center	Shinjuku-ku, Tokyo	
	JSR-UTokyo Collaboration Hub, CURIE	Bunkyo-ku, Tokyo	
Overseas branch	Taiwan Branch	Taiwan	

(2) Important Subsidiaries and Affiliates

Business division	Company Name	Headquarters
Digital Solutions Business	JSR Micro N.V.	Belgium
	JSR Micro, Inc.	United States
	JSR Micro Korea Co., Ltd.	Korea
	JSR Micro Taiwan Co., Ltd.	Taiwan
	JSR Micro (Changshu) Co., Ltd.	China
Life Sciences Business	JSR North America Holdings, Inc.	United States
	Medical & Biological Laboratories Co., Ltd.	Nagoya City, Aichi Prefecture
	KBI Biopharma, Inc.	United States
	Selexis SA	Switzerland
	Crown Bioscience International	United States
Elastomers Business	Elastomix Co. Ltd.	Yokkaichi City, Mie Prefecture
	ELASTOMIX (THAILAND) CO.,LTD.	Thailand
	JSR BST Elastomer Co., Ltd.	Thailand
	JSR MOL Synthetic Rubber Ltd.	Hungary
	Japan Butyl Co., Ltd.*	Kawasaki City, Kanagawa Prefecture
	Kumho Polychem*	Korea
	Kraton JSR Elastomers K.K.*	Minato-ku, Tokyo

	Emulsion Technology Co., Ltd.	Minato-ku, Tokyo
Plastics Business	Techno-UMG Co., Ltd.	Minato-ku, Tokyo
	Japan Coloring Co., Ltd.	Yokkaichi City, Mie Prefecture
Other businesses	JSR Trading Co., Ltd.	Minato-ku, Tokyo

(Note) 1. * indicates important affiliates.

All shares of Kumho Polychem were transferred to Kumho Petrochemical as of July 1, 2021.

2. JSR North America Holdings, Inc. oversees global operations for JSR's Digital Solutions Business and Life Sciences Business in North America, through its wholly owned subsidiaries. JSR Micro N.V. also manufactures and sells Life Sciences products.

4. JSR Group Companies (as of March 31, 2021)

Consolidated companies: 49

Non-consolidated subsidiaries: 7

Equity-method affiliates: 9

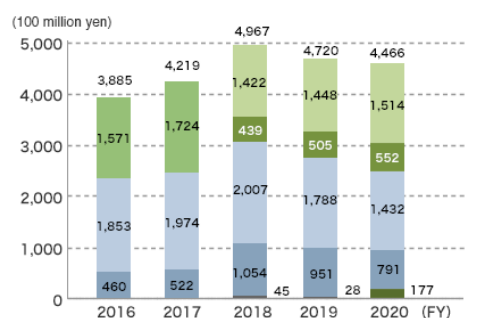
Scope of RC reporting: 19

Details are provided in ESG Data.

> [ESG Data: JSR Group Companies](#) [PDF](#)

5. Financial Information

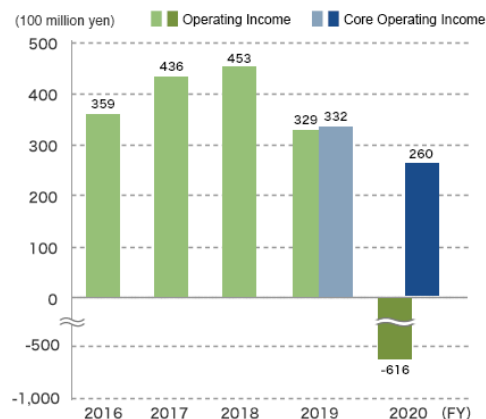
Revenue (consolidated)



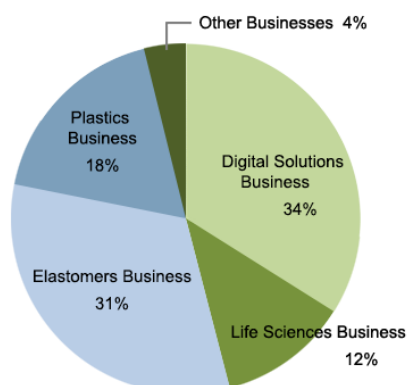
■ Digital Solutions Business ■ Life Sciences Business
■ Elastomers Business ■ Plastics Business ■ Other Businesses
■ Diversified Businesses (Fine Chemicals Business, Life Sciences Business, and Other Materials)

Note: Reporting segment classifications were changed in FY2018.

Operating Income/Core Operating Income (consolidated)



FY2020 Revenue (Consolidated) Composition Ratios



* Other: Purchasing and sales of other chemical products, wine, etc.; insurance agency, etc.

JSR Group ESG Data

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Unless otherwise noted, FY (Fiscal Year) means the year starting April 1st. For example, FY2020 means April 1, 2020 - March 31, 2021

For both absolute values and percentages, numerical values that fall below the shown number of digits are rounded off. For this reason, the sums of individual numbers may differ from the sum values provided.



JSR Corporation

Created June, 2021

◆ Environment Data

Environmental Impact of Business Activities

Category	Items	Boundary ※			Unit	FY2016	FY2017	FY2018	FY2019	FY2020				
		A	B	C										
Input Data	Raw materials consumption		○	○	○	1,357	1,400	1,394	1,267	1,042				
			○	○	○	824	828	823	707	589				
			○	○	○	412	428	417	358	318				
			○	○	○	121	144	154	202	134				
			○	○	○	411	421	429	400	369				
	Energy consumption	(Crude oil equivalent)		○	○	○	268	266	269	251	230			
				○	○	○	77	77	77	68	66			
				○	○	○	67	78	83	81	73			
				○	○	○	0.36	0.35	0.36	0.38	0.42			
		Intensity		○	○	○	0.18	0.18	0.18	0.18	0.20			
	Water consumption	(Excluding seawater)		○	○	○	19,481	19,578	20,894	20,632	18,734			
				○	○	○	14,447	14,259	15,275	14,888	13,620			
				○	○	○	3,754	3,822	3,681	3,970	3,619			
				○	○	○	1,281	1,497	1,938	1,774	1,495			
				○	○	○	19.6	19.0	20.5	22.5	25.1			
		Intensity		○	○	○	9.0	8.7	8.5	10.6	10.9			
		Industrial water	Groundwater	Tap water	Recycled water	Effective use rate of recycled water								
Seawater consumption	(For cooling)		○	○	○	55,413	55,011	64,296	56,354	51,319				
Output Data	Total generated		○	○	○	1,275	1,330	1,320	1,205	1,006				
			○	○	○	738	752	746	661	543				
			○	○	○	418	440	431	375	333				
			○	○	○	118	137	144	169	130				
			○	○	○	79	72	72	70	67				
	Industrial waste generation	Comparison with FY2013	Intensity											
	Waste generated	Recycled waste	Intensity											
		Amount of final offsite-landfills	Intensity											

*Boundaries A: JSR Corporation B: Group companies in Japan C: Group companies in other countries

Category	Items	Boundary ※			Unit	FY2016	FY2017	FY2018	FY2019	FY2020	
		A	B	C							
O u t p u t D a t a	Greenhouse gas emissions	Scope1 + Scope2	○	○	○	1,000 tons CO ₂	1,003	1,019	1,040	973	892
			○	○	○		658	653	666	625	568
			○	○	○		199	198	199	176	168
			○	○	○		147	168	175	171	156
		Comparison with FY2013	○	○	○	%	1.8	1.1	3.1	-3.3	-12.1
		Intensity	○	○	○	Tons/tons	0.89	0.87	0.89	0.95	1.05
	○		○	○	0.47		0.45	0.46	0.47	0.51	
	○		○	○	1.24		1.23	1.22	1.01	1.20	
	Waste water	Total amount of waste water	○	○	○	1,000 m ³	16,912	16,968	17,587	16,049	14,616
			○	○	○		12,161	12,108	12,479	11,250	10,141
			○	○	○		3,930	3,975	4,077	3,741	3,490
			○	○	○		821	885	1,031	1,059	984
		Intensity	○	○	○	m ³ /ton	16.5	16.1	16.7	17.0	18.7
			○	○	○		9.4	9.0	9.5	10.0	10.5
	Waste water	COD	○	○	○	Tons	531	530	580	495	401
			○	○	○		459	457	481	404	346
			○	○	○		72	74	98	91	54
		Intensity	○	○	○	x10 ⁻⁵ tons/tons	622	607	645	611	638
			○	○	○		172	167	228	243	163
			○	○	○		155	173	144	160	112
		Total nitrogen	○	○	○	Tons	139	156	129	145	102
			○	○	○		16	18	14	14	10
			○	○	○		188	207	174	220	188
		Intensity	○	○	○	x10 ⁻⁵ tons/tons	38	41	33	38	31
○			○	○	1		1	1	1	1	
○			○	○	0.7		0.7	0.6	0.6	0.7	
Total phosphorus	○	○	○	Tons	0.3	0.3	0.5	0.4	0.3		
	○	○	○		1.0	0.9	0.7	1.0	1.3		
	○	○	○		0.6	0.7	1.1	1.0	0.8		
Atmospheric emissions	SO _x	○	○	○	Tons	12	13	13	11	11	
		○	○	○		5	5	4	4	4	
		○	○	○		7	8	8	7	6	
	Intensity	○	○	○	x10 ⁻⁵ tons/tons	0.7	0.6	0.5	0.6	0.8	
		○	○	○		1.7	1.9	1.9	1.7	1.9	
		○	○	○		338	369	341	333	279	
	NO _x	○	○	○	Tons	305	335	308	303	244	
		○	○	○		33	34	33	31	35	
		○	○	○		41	45	41	46	45	
	Intensity	○	○	○	x10 ⁻⁵ tons/tons	8.0	7.8	7.8	8.2	10.6	
○		○	○	670		583	536	523	435		
○		○	○	0.9		0.8	0.7	0.8	0.8		
PRTR (In Japan only)	Amount handled	○	○	○	Tons	966,150	981,530	960,932	842,045	697,162	
		○	○	○		734,202	739,259	725,727	632,835	523,163	
		○	○	○		231,947	242,272	235,205	209,210	174,000	
	Atmospheric emissions	○	○	○	Tons	163	168	134	170	154	
		○	○	○		108	119	95	124	106	
		○	○	○		55	50	39	45	47	
	Water supply discharge	○	○	○	Tons	10	10	11	9	8	
		○	○	○		3	2	3	2	2	
		○	○	○		7	8	8	7	6	
	Transported waste	○	○	○	Tons	796	1,031	890	897	807	
		○	○	○		272	445	328	338	348	
		○	○	○		524	586	562	559	458	

*Boundaries A: JSR Corporation B: Group companies in Japan C: Group companies other than Japan

Accounting for Greenhouse Gas Emissions Throughout the Supply Chain

In FY 2019, some calculation methods, conversion factors, and the scope of calculation were revised. In the table below, calculations were retroactively performed in accordance with the disclosure guidelines of the CDP (Carbon Disclosure Project). **The relevant sections are shown in red.**

Note: From FY 2018, other indirect emissions (Scope 3) category 1 has been changed to be calculated for all JSR Group.

Category	Boundary	FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission		FY2020 Emission	
		t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)
I. Direct emissions (Scope 1)	JSR Group	431,489	26.1	418,037	25.0	439,556	20.3	408,480	20.3	398,733	22.6
II. Energy-derived indirect emissions (Scope 2)		571,764	34.6	601,141	36.0	600,485	27.7	564,108	28.1	492,844	28.0
III. Other indirect emissions (Scope 3)		651,608	39.4	649,724	38.9	1,129,175	52.1	1,038,302	51.6	869,723	49.4
I. Direct emissions (Scope 1)	JSR Corporation	397,763	30.9	383,394	29.9	404,131	31.6	374,483	32.4	365,397	35.5
II. Energy-derived indirect emissions (Scope 2)		259,969	20.2	269,797	21.1	262,009	20.5	250,404	21.6	202,192	19.7
III. Other indirect emissions (Scope 3)		629,484	48.9	627,963	49.0	614,841	48.0	532,859	46.0	461,577	44.9
I. Direct emissions (Scope 1)	Group companies in Japan	27,476	12.8	28,088	13.2	27,067	4.7	24,818	5.0	25,307	5.6
II. Energy-derived indirect emissions (Scope 2)		171,034	79.5	169,611	79.5	172,262	30.0	151,569	30.4	142,854	31.5
III. Other indirect emissions (Scope 3)		16,641	7.7	15,665	7.3	374,074	65.2	322,890	64.7	284,926	62.9
I. Direct emissions (Scope 1)	Group companies other than Japan	6,250	4.1	6,555	3.8	8,358	2.7	9,179	2.6	8,028	2.9
II. Energy-derived indirect emissions (Scope 2)		140,761	92.3	161,734	92.7	166,215	52.8	162,135	45.8	147,798	53.0
III. Other indirect emissions (Scope 3)		5,483	3.6	6,096	3.5	140,260	44.6	182,553	51.6	123,221	44.2

Other indirect emissions (Breakdown of Scope 3)

(1) JSR Corporation

Category	Boundary	FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission		FY2020 Emission	
		t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)
Category 1	Purchased goods and services	552,567	87.8	547,887	87.2	540,653	87.9	447,580	84.0	371,339	80.5
Category 2	Capital goods	37,553	6.0	40,628	6.5	35,907	5.8	51,266	9.6	61,278	13.3
Category 3	Fuel and energy related activities not included in Scope 1 or 2	6,713	1.1	6,788	1.1	6,958	1.1	6,217	1.2	6,530	1.4
Category 4	Transportation and delivery (upstream)	14,133	2.2	13,177	2.1	13,112	2.1	10,706	2.0	7,559	1.6
Category 5	Waste from business operations	5,777	0.9	6,886	1.1	5,738	0.9	6,154	1.2	5,436	1.2
Category 6	Business travel	330	0.1	328	0.1	338	0.1	347	0.1	354	0.1
Category 7	Employee commuting	1,194	0.2	1,184	0.2	1,221	0.2	1,255	0.2	1,278	0.3
Category 8	Leased assets (upstream)	24	0.0	19	0.0	19	0.0	22	0.0	14	0.0
Category 9	Transportation and delivery (downstream)	11,156	1.8	11,065	1.8	10,894	1.8	9,312	1.7	7,790	1.7
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	38	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total of Scope3 (Category 1- Category 15) 629,484 100 627,963 100 614,841 100 532,859 100 461,577 100 (N/A: not applicable, --: no data)

(2) Group companies in Japan

Category	Boundary	FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission		FY2020 Emission	
		t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)
Category 1	Purchased goods and services	-	-	-	-	360,084	96.3	308,621	95.6	274,770	96.4
Category 2	Capital goods	-	-	-	-	-	-	-	-	-	-
Category 3	Fuel and energy related activities not included in Scope 1 or 2	-	-	-	-	-	-	-	-	-	-
Category 4	Transportation and delivery (upstream)	-	-	-	-	-	-	-	-	-	-
Category 5	Waste from business operations	15,547	93.4	14,567	93.0	12,848	3.4	13,140	4.1	9,046	3.2
Category 6	Business travel	224	1.3	226	1.4	237	0.1	235	0.1	234	0.1
Category 7	Employee commuting	808	4.9	816	5.2	855	0.2	847	0.3	843	0.3
Category 8	Leased assets (upstream)	24	0.1	23	0.1	19	0.0	22	0.0	10	0.0
Category 9	Transportation and delivery (downstream)	-	-	-	-	-	-	-	-	-	-
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	37	0.2	33	0.2	31	0.0	25	0.0	24	0.0
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total of Scope3 (Category 1- Category 15)		16,641	100	15,665	100	374,074	100	322,890	100	284,926	100

(N/A: not applicable, -: no data)

(3) Group Companies other than Japan

Category	Boundary	FY2016 Emission		FY2017 Emission		FY2018 Emission		FY2019 Emission		FY2020 Emission	
		t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)	t-CO ₂	ratio (%)
Category 1	Purchased goods and services	-	-	-	-	132,802	94.7	174,724	95.7	115,810	94.0
Category 2	Capital goods	-	-	-	-	-	-	-	-	-	-
Category 3	Fuel and energy related activities not included in Scope 1 or 2	-	-	-	-	-	-	-	-	-	-
Category 4	Transportation and delivery (upstream)	-	-	-	-	-	-	-	-	-	-
Category 5	Waste from business operations	3,854	70.3	4,427	72.6	5,382	3.8	5,633	3.1	5,412	4.4
Category 6	Business travel	172	3.1	180	3.0	190	0.1	203	0.1	213	0.2
Category 7	Employee commuting	621	11.3	650	10.7	685	0.5	733	0.4	768	0.6
Category 8	Leased assets (upstream)	835	15.2	839	13.8	839	0.6	896	0.5	656	0.5
Category 9	Transportation and delivery (downstream)	-	-	-	-	-	-	-	-	-	-
Category 10	Processing of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 11	Use of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 12	Disposal of sold products	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Category 13	Leased assets (downstream)	0	0.0	0	0.0	362	0.3	362	0.2	362	0.3
Category 14	Franchises	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Category 15	Investments	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total of Scope3 (Category 1- Category 15)		5,483	100	6,096	100	140,260	100	182,553	100	123,221	100

(N/A: not applicable, -: no data)

Categories of Greenhouse Gas Emissions Throughout

Category	Emissions subject to calculation
I. Direct emissions (Scope 1)	<ul style="list-style-type: none"> ■ Direct emissions from the use of fuel and industrial processes by the reporting company
II. Energy-derived indirect emissions (Scope 2)	<ul style="list-style-type: none"> ■ Emissions from the use of electricity and heat purchased by the reporting company
III. Other indirect emissions (Scope 3)	<ul style="list-style-type: none"> • Added as a new calculation item in FY2016 • Expansion of calculation range for some new items in FY2018

Other indirect emissions (Breakdown of Scope 3)

Category	Emissions subject to calculation
Category 1	<p>Emissions from activities up to the manufacture of raw materials, parts, purchased goods, sales-related materials, etc.</p> <ul style="list-style-type: none"> • Calculated for JSR only from FY2016. • Expansion of calculation range for some new items in FY2018.
Category 2	<p>Emissions from the construction and manufacturing of the reporting company's capital goods</p> <ul style="list-style-type: none"> • Calculated for JSR only from FY2016.
Category 3	<p>Emissions from the procurement of fuel used in power generation, etc., for electricity and heat procured from other entities</p> <ul style="list-style-type: none"> • Calculated for JSR only.
Category 4	<p>(1) Emissions from the distribution of raw materials, parts, purchased goods, sales-related materials, etc., up to delivery to the reporting company</p> <p>(2) Emissions (emissions from the distribution paid for by the reporting company) amount of activity from distribution services other than (1) above (transport, handling, and storage) purchased in the fiscal year of the report: Amount of shipment distribution in Japan and other countries</p> <ul style="list-style-type: none"> • Calculated for JSR only.
Category 5	<p>Emissions from the transportation and processing of waste generated by the reporting company</p>
Category 6	<p>Emissions from employee business travel</p>
Category 7	<p>Emissions from employee transportation when commuting to and from the place of business</p>
Category 8	<p>Emissions from the operation of assets leased to the reporting company (excluding emissions calculated under Scope 1 or 2)</p>
Category 9	<p>Emissions from the transport, storage, cargo handling, and retail sales of products (limited to those items not paid for by the reporting company)</p> <ul style="list-style-type: none"> • Calculated for JSR only.

Category	Emissions subject to calculation
Category 10	Emissions from the processing of intermediate products by the reporting company <input type="checkbox"/> This category is excluded from calculation because the company is a chemical intermediates manufacturer.
Category 11	Emissions from the use of products by users (consumers and companies) <ul style="list-style-type: none"> • This category is excluded from calculation because the company is a chemical intermediates manufacturer and the category is not applicable to the use of sold products.
Category 12	Emissions from the transportation and processing of products upon disposal by users (consumers and companies) <ul style="list-style-type: none"> • This category is excluded from calculation because the company is a chemical intermediates manufacturer.
Category 13	Emissions from the operation of assets leased to other entities
Category 14	Emissions from franchises <ul style="list-style-type: none"> • No emissions; business structures are not franchises.
Category 15	Emissions from investment to earn profit <ul style="list-style-type: none"> • This category is excluded from calculation because it is not applicable to "investment to earn profit."

FY2020 Emissions of Chemical Substances (PRTR)

Totals for JSR Corporation (Yokkaichi Plant, Chiba Plant, Kashima Plant and Tsukuba Research Laboratories)

Ordinance designated number	Substance	Amounts handled* ¹ (t)	Emissions			Transfers* ² (t)
			Atmospheric (t)	Water (t)	Soil (t)	
1	Zinc compounds (water-soluble)	1.2	0.0	1.2	0.0	0.0
2	Acrylamide	54.8	0.0	0.0	0.0	0.0
4	Acrylic acid and its water-soluble salts	404.5	0.0	0.0	0.0	0.0
7	n-Butyl acrylate	14.9	0.0	0.0	0.0	0.0
9	Acrylonitrile	10,424.2	0.3	0.0	0.0	1.1
13	Acetonitrile	85.0	0.1	0.6	0.0	7.6
20	2-Aminoethanol	1.1	0.0	0.0	0.0	0.0
28	Allyl alcohol	4.4	0.0	0.0	0.0	4.2
30	n-Alkylbenzenesulfonic acid and its salts (limited to those with 10 to 14 alkyl group carbons and their mixtures)	351.1	0.0	0.0	0.0	0.0
36	Isoprene	30,603.3	0.1	0.0	0.0	0.5
53	Ethylbenzene	1.8	0.0	0.0	0.0	0.0
71	Ferric chloride	24.5	0.0	0.0	0.0	0.0
80	Xylene	4.4	0.0	0.0	0.0	1.7
86	Cresol	12.4	0.0	0.0	0.0	0.0
150	1,4-Dioxane					
186	Dichloromethane (also called methylene chloride)	17.1	3.2	0.0	0.0	11.8
190	Dicyclopentadiene	8,561.9	0.1	0.0	0.0	31.3
202	Divinylbenzene	18.6	0.0	0.0	0.0	0.0
203	Diphenylamine	30.6	0.0	0.0	0.0	0.0
207	2,6-di-tert-butyl-4-cresol (also called BHT)	318.0	0.1	0.0	0.0	0.1
220	Water-soluble salts of dimethyldithiocarbamic acid	45.3	0.0	0.0	0.0	0.0
230	N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine	111.4	0.0	0.0	0.0	0.0
240	Styrene	17,510.0	5.0	0.0	0.0	2.1
274	Tert-dodecanethiol	422.4	0.0	0.0	0.0	0.0
276	3, 6, 9-triazaundecane-1, 11-diamine (also called tetraethylenepentamine)	10.0	0.0	0.0	0.0	2.7
300	Toluene	2,034.3	48.8	0.2	0.0	207.4
321	Vanadium compounds	21.7	0.0	0.0	0.0	21.2
337	4-Vinyl-1-cyclohexene	83.2	0.0	0.0	0.0	0.6
351	1,3-Butadiene	449,854.3	5.5	0.0	0.0	1.1
392	n-Hexane	379.5	42.6	0.0	0.0	54.7
395	Water-soluble salts of peroxodisulfuric acid	412.7	0.0	0.0	0.0	0.0
411	Formaldehyde	2.7	0.0	0.0	0.0	0.0
415	Methacrylic acid	64.1	0.0	0.0	0.0	0.0
420	Methyl methacrylate	1,276.1	0.3	0.0	0.0	0.1
440	1-Methyl-1-phenylethyl hydroperoxide	1.4	0.0	0.0	0.0	0.0
	Total	523,162.6	106.1	2.0	0.0	348.4
243	Dioxins* ³	-	0.0660	0.0350	0.0000	0.0000

*1 The handling amount represents the value after base deduction (1 ton/year per place of business)

*2 The transfer amount is the amount committed to intermediate waste service companies plus the amount discharged into public sewers

*3 Dioxin category unit: mg-TEQ

◆ Social Data

Workplace Accidents (calendar year)

		Boundary	Unit	2016	2017	2018	2019	2020
Number of Workplace Accidents Lost time injury () Indicates non-working accident	JSR Corporation	Same as shown at left	Accident	0 (1)	2 (3)	0 (0)	1 (0)	0 (0)
	Manufacturing partners of JSR			1 (2)	2 (0)	1 (0)	0 (4)	2 (1)
	Group companies in Japan			2 (1)	0 (3)	2 (3)	3 (4)	1 (2)
	Manufacturing partners of Group companies in Japan			1 (1)	2 (2)	0 (2)	2 (3)	1 (2)
Lost time injury	Frequency ^{*1}	JSR Corporation	–	0.00	0.48	0.00	0.24	0.00
	Severity ^{*2}		–	0.00	0.04	0.00	0.00	0.00
	Severity ^{*2}	Statistics by JCIA	–	0.35	0.36	0.31	0.42	Not yet announced

※The red letters are corrected in January, 2022.

*1 Frequency = (Deaths or injuries in workplace accidents resulting in absence from work ÷ total working hours for all employees) × 1 million

*2 Severity = (Total days of lost work accidents / Total number of actual working hours) × 1000

*3 Source: JCIA (=Japan Chemical Industry Association) statistical data (occupational safety and health fact-finding results)

Equipment accidents (calendar year)

		Boundary	Unit	2016	2017	2018	2019	2020
Number of facility accidents	Leakage	JSR Corporation	Accident	0	1	2	1	4
	Fire			1	1	0	0	1
	Other			0	0	0	3	5
	Leakage	Group companies in Japan	Accident	0	1	3	3	1
	Fire			0	0	1	2	0
	Other			0	0	0	3	1

* Corrected the number of cases in 2019 (in red)

ISO 45001 Certification (Manufacturing Bases) as of March 31, 2021

Company name	Certification number	Certification acquisition date (Updated)	Expiry date
Techno-UMG Co., Ltd. Ube Plant	JQA-OH0037	March 1, 2021	February 29, 2024
JSR Micro Kyushu Co., Ltd.	JQA-OH0319	March 27, 2020	March 26, 2023
JSR Micro N.V.	BE20/819943937	April 25, 2020	April 24, 2023
JSR Micro Inc.,	OHS13340	March 18, 2019	March 17, 2022

◆ Social Data

Accidents and other Incidents

	Boundary	Unit	2016	2017	2018	2019	2020
Logistics-related workplace accidents	JSR Corporation	Accident	----	----	0	0	0
Traffic accidents resulting in injury to others			----	----	0	0	0
Traffic accidents resulting in injury to JSR employee			----	----	0	0	0

Achieving a modal shift

	Boundary	Unit	2016	2017	2018	2019	2020
Transport volume ^{※4}	JSR Corporation	1 million tons-km	562	534	514	434	324
Modal shift rate ^{※5}		%	87	86	85	85	83

※4 Transport volumes for products and raw materials transported and delivered from JSR Corporation's own warehouses and contracted outside warehouses to specified destinations in Japan

※5 Ton-km: [Cargo weight (tons)] x [transport distance (kilometers)]

◆ Social Data

Human Resources Data								
	Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	
Consolidated number of employees	JSR Group	Person	6,790	7,203	8,748	9,050	9,383	
Non-regular employee ratio (non-regular / employee + non-regular)	JSR Group	%	11	9	13	8	7	
Employee ratios by region	Japan	JSR Group	%	68	64	60	59	57
	Asia (excluding Japan)			18	19	16	20	21
	United States			9	13	20	16	18
	Europe			5	4	4	5	4

As of the end of each fiscal year (March 31)

	Boundary	Unit	FY2015	FY2016	FY2017	FY2018	FY2019	
% of female employees	List of JSR Corporation and Group companies *1	%	–	–	–	18	16.9	
Number of employees	Male	Person	2,858	2,848	2,883	2,933	2,974	
			Female	470	483	494	515	537
				Total	3,328	3,331	3,377	3,448
Number of hires	New graduates*2	Male			80	66	74	89
			Female		15	15	15	18
				Total	95	81	89	107
	Mid-career	Male			19	23	31	25
			Female		3	4	11	7
				Total	22	27	42	32
Average number of years of continuous service	Year	13			13.2	12.9	13.3	13.6
		14.8	15.1		14.8	14.7	14.7	
		13.2	13.5	13.2	13.5	13.8		
Turnover rate for personal reasons	%	1.1	1.1	1.4	1.2	1.3		
Turnover rate within three years of joining company		2.1	1.1	6.4	7.4	6.9		
Layoff	Person	0	0	0	0	0		

As of the end of each fiscal year (March 31)

*1 For the scope of data collection, please refer to the Group Companies List.

*2 As of the beginning of each fiscal year (April 1)

*3 Including seconded employees

Annual Total Working Hours/Annual Total Overtime Hours/Average annual salary							
	Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Per-person total working hours	JSR Corporation*3	Hour	1,977	1,966	1,969	1,950	1,903
Per-person total overtime hours			225	215	220	214	148
% of annual paid leave taken		%	–	–	–	85.2	81.0
Average annual salary*4		1,000 JPY	7,424	7,432	7,551	7,546	7,360

*3 Including seconded employees

*4 Average annual salary includes bonuses and non-standard wages.

◆ Social Data

Education/Training and Overseas Assignments							
	Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Per-person total training hours* ⁵	JSR Corporation* ³	Hour	17.7	16.8	14.7	18.7	12.4
e-learning program on the Principles of Corporate Ethics	JSR Corporation & its group companies in Japan	Hour/Person	0.5	0.5	0.5	0.5	0.5
e-learning program on the confidential information management			0.5	0.5	0.5	0.5	0.5
e-learning program on anti-monopoly law · anti-corruption · subcontract law management			0.5	0.5	0.5	0.5	0.5
e-learning program on information security			–	0.5	0.5	0.5	0.5
e-learning program on quality compliance			–	0.5	1.0	0.5	–
e-learning program on safety			–	–	–	0.5	0.5
e-learning program on work style reform law			–	–	0.5	–	0.5
Number of employees sent to overseas training	JSR Corporation* ³	Person	12	9	8	11	6

*3 Including seconded employees

*5 This total was calculated by including technology and skill training, employee level-based training, and other training organized by human resources departments. It therefore does not include hours spent in education provided by organizations other than

Diversity Development								
	Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	
% of women hired annually per position* ²	College graduates, engineering positions	%	15	20	18	19	24	
	College graduates, administrative position		60	50	45	38	54	
% of women in managerial positions* ²			3.6	3.8	4.1	4.3	4.1	
% of female workers at unit chief level* ²	JSR Corporation* ³	%	–	–	–	8.9	9.4	
% of female executives* ²		%	–	–	–	6.1	9.1	
Career Re-Entry System		Registered	Person	5	4	5	5	3
		Rehired	Person	1	1	2	4	2
Hiring of foreign nationals		Person	Person	3	3	1	3	7
Employment rate of individuals with disabilities		%	%	2.32	2.47	2.43	2.38	2.34

As of the end of each fiscal year (March 31)

*2 As of the beginning of each fiscal year (April 1)

*3 Including seconded employees

※Corrected the career re-entry persons in 2019 (in red)

◆ Social Data

Work-Life Management Data									
Number of work-balance support benefit users		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020	
Fertility treatment	Shortened working hours	JSR Corporation*3	Person	0	1	2	0	0	
Childbirth	Prenatal & postpartum maternity leave system *5			23	21	24	19	18	
	Childcare leave system *5			Female	19	24	22	36	36
				Male	11	41	38	62	59
				Total	30	65	60	98	95
	Extended childcare leave counseling			14	13	28	15	17	
Balancing work and childcare	Shortened working hours*6			87	91	101	113	119	
Balancing work and nursing care	Shortened working hours			2	3	1	1	2	
	Nursing-care leave *7			3	8	7	11	6	
	Extended nursing-care leave			1	0	1	3	0	
Other	Discretionary labor system *1	107	108	111	122	122			
	Special volunteer leave(The value in parentheses represents the total number of leave days taken)	3 (7)	0 (-)	7 (17)	2(2)	0 (-)			

As of the end of each fiscal year (March 31)

*2 As of the beginning of each fiscal year (April 1)

*3 Including seconded employees

*6 The telecommuting system has been implemented since fiscal 2019 by eliminating the requirements for childcare and nursing care.

*7 At the request of employees who use various systems, we lend mobile devices that can access our corporate network from home.

*8 Per employee request, mobile devices with remote access to the company network are provided under this benefit.

*9 Number includes pregnant benefit users.

Number of employees eligible for work-balance support allowances		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Extended childcare leave allowance		JSR Corporation*3	Person	26	67	53	80	75
Post-childcare leave reinstatement allowance				19	16	30	28	22
Daycare allowance				6	7	15	18	16

As of the end of each fiscal year (March 31)

*3 Including seconded employees

Union Data								
		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
JSR labor union members	Number of subscribers	JSR Corporation*3	Person	3,490	3,545	3,588	3,739	3,766
	Subscription rate (organization rate)		%	100	100	100	100	100

As of the end of each fiscal year (March 31)

*3 Including seconded employees

◆ Governance Data

Corporate Governance

			Boundary	Unit	FY2016	FY2017	FY2018	FY2019 *1	FY2020	
Board of Directors	Inside Directors (executive directors)	Male	JSR Corporation	Person	4	4	4	5	8	
		Female			0	0	0	0	1	
		Total			4	4	4	5	9	
	Independent Outside Directors (non-executive directors)	Male			3	3	3	3	3	
		Female			0	0	0	0	0	
		Total			3	3	3	3	3	
	Total	Male			7	7	7	8	11	
		Female			0	0	0	0	1	
		Total			7	7	7	8	12	
	% Independent Outsider				%	43	43	43	38	33
	% Female Director				%	0	0	0	0	11
Term of Office		Year/Term	1	1	1	1	1			
Maximum age limit for directors		Years old	なし	なし	なし	なし	なし			
Number of BOD meetings held in a fiscal year				Times	17	17	17	17	17	

*1 Mr. Manabu Miyasaka, a former outside director (term of office from June 18, 2019 to September 5, 2019), is excluded from this table.

			Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Audit & Supervisory Board (formerly known as Statutory Auditors Board)	Insider	Male	JSR Corporation	Person	1	1	1	1	1
		Female			0	0	0	0	0
		Total			1	1	1	1	1
	Independent Outsider	Male			1	1	1	1	1
		Female			1	1	1	1	1
		Total			2	2	2	2	2
	Total	Male			2	2	2	2	2
		Female			1	1	1	1	1
		Total			3	3	3	3	3
	% Independent Outsider				%	67	67	67	67
% Female Audit & Supervisory Board Member		%	33	33	33	33	33		
Term of office		Year/Term	4	4	4	4	4		
Number of Audit & Supervisory Board meetings held in a year				Times	19	19	18	18	18

			Boundary	Unit	FY2016	FY2017	FY2018	FY2019 *1	FY2020
Nomination Advisory Committee	Chaired by Independent Outside Director		JSR Corporation	Yes/No	Yes	Yes	Yes	Yes	Yes
	Committee Member	Independent Outside Directors		Person	3	3	3	3	3
		Inside Director		2	2	2	1	2	
		Total		5	5	5	4	5	
Number of meetings held in a year				Times	3	3	3	3	3
Remuneration Advisory Committee	Chaired by Independent Outside Director		JSR Corporation	Yes/No	Yes	Yes	Yes	Yes	Yes
	Committee Member	Independent Outside Directors		Person	3	3	3	3	3
		Inside Director		1	1	1	1	2	
		Total		4	4	4	4	5	
Number of meetings held in a year				Times	4	4	4	4	7

*1 Mr. Manabu Miyasaka, a former outside director (term of office from June 18, 2019 to September 5, 2019), is excluded from this table.

◆ Governance Data

		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Number of officers*	Male	JSR Corporation	Person	21 (3)	24 (3)	24 (3)	25 (2)	25 (3)
	Female			1 (0)	1 (0)	1 (0)	1 (0)	1 (1)
	Total			22 (3)	25 (3)	25 (3)	26 (2)	26 (5)

Remuneration for Directors and Audit & Supervisory Board Members

			Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Remuneration for Directors	Inside Directors	Basic Remuneration (Fixed remuneration)	JSR Corporation	Million JPY	195	183	186	264	246
		Annual Bonuses (Short term performance linked remuneration)			48	69	50	64	182
		Medium-term performance-based bonus			–	–	25	48	abolition
		Restricted Stock Shares (Remuneration in share stock)			–	28	37	100	124
		Deep Discounted Stock Option (Remuneration in share stock)			34	9	–	–	–
		Sub-total			277	289	298	476	552
	Outside Directors	Basic Remuneration (Fixed remuneration)			40	40	42	47	43
		Sub-total			40	40	42	47	43
	Total				317	329	340	523	595
	Remuneration for Audit & Supervisory Board members	Inside Audit & Supervisory Board Member			Basic Remuneration (Fixed remuneration)	JSR Corporation	Million JPY	28	28
Sub-total			28	28	29			28	28
Outside Audit & Supervisory Board Members		Basic Remuneration (Fixed remuneration)	17	17	20			22	22
		Sub-total	17	17	20			22	22
Total		45	45	49	50			50	

List of Remuneration for individual Directors paid in FY2020 *2

Name	Position	Name of Company	Unit	Description of consolidated remuneration				Total
				Basic Remuneration	Restricted Stock shares	Medium-term performance-based bonus	Stock Option as Remuneration	
Eric Johnson	Director	JSR Corporation	Million JPY	56	60	–	33	311
	President	JSR North America Holdings, Inc.	Million JPY	69	60	–	33	
Nobuo Kawahashi	Director	JSR Corporation	Million JPY	80	34	–	21	135
Mitsunobu Koshiba	Director	JSR Corporation	Million JPY	83	–	–	21	104

*2 the above list is limited to Directors whose annual remuneration

◆ Governance Data

Accounting Auditors								
		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Amount of remuneration for Accounting Auditors	Remuneration for services relating to auditing or certifying the financial documents	JSR Corporation and its consolidated subsidiaries	Million JPY	68	67	87	116	112
	Remuneration for non-auditing services			5	24	0	0	2
Amount of remuneration for Accounting Auditors	Remuneration for services relating to auditing or certifying the financial documents	JSR Corporation and its consolidated subsidiaries	Million JPY	–	–	39	72	96
	Remuneration for non-auditing services			–	–	42	28	42

◆ Governance Data

Activities of Directors and Audit & Supervisory Board Members in FY2020

Name, Gender, Nationality	Title*	Age*	Tenure*	Activities	Attendance to the meetings in fiscal year ending in march 2020		
Eric Johnson, Male, U.S.A.	Representative Director and CEO	60	2 years	Since assuming the position of Representative Director and CEO in 2019, Mr. Johnson has been driving the Life Sciences Business's expansion as the Managing Officer responsible for overseeing the North America Business as well as leading the Group's management by applying his global management experience. He is striving to ensure that JSR is a company that earns the trust and satisfaction of all stakeholders. He put his abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and he contributed to the continuous improvement of the Group's corporate value.	BOD	Times/ Times 17 / 17	100%
Nobuo Kawahashi, Male, Japan	Representative Director and President, COO	64	5 years	Since assuming the position of Representative Director and President in 2019, Mr. Kawahashi has supported JSR's foundation by assisting the CEO and overseeing the Elastomers Business, Plastics Business, and Digital Solutions Business based on JSR's management policies and strategies. He put his abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and he contributed to the continuous improvement of the Group's corporate value.	BOD	17 / 17	100%
Mitsunobu Koshiba, Male, Japan	Director and Chairman of the Board	65	15 years	Since assuming the position of Representative Director and Chairman in 2019, Mr. Koshiba has served as the Chairman of the Board, strengthened corporate governance, and lifted the Group's corporate value by raising the Board of Director's effectiveness. He put his abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and he contributed to the continuous improvement of the Group's corporate value.	BOD	17 / 17	100%
					Nomination Advisory Committee	3 / 3	100%
					Remuneration Advisory Committee	4 / 4	100%
Kouichi Kawahashi, Male, Japan	Director and Executive Managing Officer	64	5 years	Mr. Kawasaki is in charge of production/ technology, quality assurance, environmental safety, human resources development, and diversity development, and he contributes to higher corporate value for the Group. He put his abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and he contributed to the continuous improvement of the Group's corporate value.	BOD	17 / 17	100%
Hideki Miyazaki, Male, Japan	Director and Managing Officer	63	3 years	Mr. Miyazaki takes charge of accounting, finance, corporate communications, system strategy, cyber security supervision, and business process innovation by utilizing abundant experience and broad knowledge of finance in Japan and abroad that he acquired over many years, and he contributes to higher corporate value for the Group. He put his abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and he contributed to the continuous improvement of the Group's corporate value.	BOD	17 / 17	100%

Name, Gender, Nationality	Title [※]	Age [※]	Tenure [※]	Activities	Attendance to the meetings in fiscal year ending in march 2020
Mika Nakayama, Female, Japan	Director and Senior Managing Officer	60	1 year	Ms. Nakayama contributes to higher corporate value for the Group as JSR's Chief Sustainability Officer. She put her abundant work experience and knowledge to use in decision-making concerning important matters and in supervising work execution at Board of Directors meetings, and she contributed to the continuous improvement of the Group's corporate value.	BOD 13 / 13 100%
Yuzuru Matsuda, Male, Japan	Independent Outside Director	72	6 years	Attending 17 of the 17 Board of Directors meetings held during the fiscal year, Mr. Matsuda utilized his abundant experience gained through the management of companies engaged in international business in the fields of ethical pharmaceuticals and bio-chemicals as well as an outside perspective independent of the Company, made necessary comments on deliberations of proposals and other matters as appropriate, and contributed to the continuous enhancement of corporate value by ensuring the rationality of management decisions and the transparency and soundness of management. He also served as the chairperson of the Remuneration Advisory Committee and worked to ensure the rationality and transparency of the remuneration system for directors and corporate auditors, and he examined business succession plans for the Group's management structure from an objective and long-term perspective as the chairperson of the Nomination Advisory Committee.	BOD 17 / 17 100%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 7 / 7 100%
Shiro Sugata, Male, Japan	Independent Outside Director	71	5 years	Attending 17 of the 17 Board of Directors meetings held during the fiscal year, Mr. Sugata utilized his abundant experience gained through the management of companies engaged in international business in optical application products, industrial machinery, and other fields and through financial activities as well as an outside perspective independent of the Company, made necessary comments on deliberations of proposals and other matters as appropriate, and contributed to the continuous enhancement of corporate value by ensuring the rationality of management decisions and the transparency and soundness of management. He also served as a member of the Remuneration Advisory Committee and worked to ensure the rationality and transparency of the remuneration system for directors and corporate auditors, and he examined business succession plans for the Group's management structure from an objective and long-term perspective as a member of the Nomination Advisory Committee.	BOD 17 / 17 100%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 7 / 7 100%

Name, Gender, Nationality	Title*	Age*	Tenure*	Activities	Attendance to the meetings in fiscal year ending in March 2020
Tadayuki Seki, Male, Japan	Independent Outside Director	71	4 years	Attending 17 of the 17 Board of Directors meetings held during the fiscal year, Mr. Seki utilized his abundant experience in managing a company engaged in international business as a general trading company and extensive experience in finance and accounting as a CFO as well as an outside perspective independent of the Company, made necessary comments on deliberations of proposals and other matters as appropriate, and contributed to the continuous enhancement of corporate value by ensuring the rationality of management decisions and the transparency and soundness of management. He also served as a member of the Remuneration Advisory Committee and worked to ensure the rationality and transparency of the remuneration system for directors and corporate auditors, and he examined business succession plans for the Group's management structure from an objective and long-term perspective as a member of the Nomination Advisory Committee.	BOD 17 / 17 100%
					Nomination Advisory Committee 3 / 3 100%
					Remuneration Advisory Committee 7 / 7 100%
Atsushi Kumano, Male, Japan	Full-time Audit & Supervisory Board Member	63	1 year	As the Standing Auditor, Mr. Iwabuchi applied his abundant experience, knowledge, and expertise gained at the Company, shared those attributes with outside auditors, and utilized those attributes in audits of directors' decision-making and the circumstances of business execution, and he helped to ensure the rationality of the Company's management decisions and the transparency and soundness of its management.	BOD 13 / 13 100%
					Audit & Supervisory Board 18 / 18 100%
Hisako Kato, Female, Japan	Independent Outside Audit & Supervisory Board Member	72	7 years	Attending 17 of the 17 Board of Directors meetings and 18 of 18 Audit & Supervisory Board meetings held during the fiscal year, Ms. Kato made use of her broad expertise and extensive experience in finance and accounting as a certified public accountant and certified tax accountant as well as an outside perspective independent of the Company in Company audits, made necessary comments on deliberations of proposals and other matters as appropriate, and helped to ensure the rationality of management decisions and the transparency and soundness of management.	BOD 17 / 17 100%
					Audit & Supervisory Board 18 / 18 100%
Sumio Moriwaki, Male, Japan	Independent Outside Audit & Supervisory Board Member	64	4 years	Attending 17 of the 17 Board of Directors meetings and 18 of 18 Audit & Supervisory Board meetings held during the fiscal year, Mr. Moriwaki made use of his broad expertise and extensive experience in the law as an attorney as well as an outside perspective independent of the Company in Company audits, made necessary comments on deliberations of proposals and other matters as appropriate, and helped to ensure the rationality of management decisions and the transparency and soundness of management.	BOD 17 / 17 100%
					Audit & Supervisory Board 18 / 18 100%

*1 As of June 17, 2021 (at the close of the 76th AGM of the Company)

◆ Governance Data

Compliance								
		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Amount of corporate income tax paid	JSR Corporation and consolidated subsidiary in Japan	same as the left hand column	Million JPY	–	12,565	9,547	9,435	3,266
	Consolidated Subsidiaries in other countries			–	2,204	1,434	3,338	2,127
Political Donations/contribution		JSR Corporation		–	0	0	0	0
		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
Number of CSR Committee meetings held in a year		JSR Corporation	Times	6	7	4	5	4
Violation of each country's anti-corruption laws and international standards	Number of violations	JSR Group	Times	0	0	0	0	0
	Penalty	JSR Group	JPY	0	0	0	0	0
Number of times the JSR Group hotline was used	JSR Corporation		Number	3	2	6	3	9
	Group companies			3	4	10	7	17
	Unknown			0	0	1	0	0
Number of times the supplier hotline was used	JSR Corporation		Number	0	0	0	0	0
	Group companies			0	0	0	0	0
Research and Development (R&D)								
		Boundary	Unit	FY2016	FY2017	FY2018	FY2019	FY2020
R&D expenses	JSR Group		Billion JPY	197	203	249	254	246
	JSR Corporation		Billion JPY	155	165	191	205	193
Number of researchers		JSR Corporation	Person	673	680	727	747	766
Number of patents held	Japan	JSR Corporation	Number	3,266	3,282	3,258	2,960	2,695
	Other than Japan			3,738	3,812	3,793	3,710	3,446
	Total			7,004	7,094	7,051	6,670	6,141

JSR Group Companies (As of 31st May, 2021)

49 consolidated companies, 7 non-consolidated companies, 9 affiliates accounted for by the equity method, and 19 scope of RC reporting

Japan											
Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Digital Solutions	Life Sciences	Elastomer	Plastics	Others					
Japan	JSR Micro Kyushu Co., Ltd.	●					●			※	*
	D-MEC LTD.	●					●				*
	JAPAN FINE COATINGS Co., Ltd.	●							◆		
	JSR Life Sciences Corporation		●				●			※	
	MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.		●				●				
	G&G SCIENCE CO., LTD.		●				●				
	MBL Venture Capital Co.,Ltd.		●				●				
	ELASTOMIX CO., LTD.	●		●			●			※	*
	Emulsion Technology, Co., Ltd.	●		●			●			※	*
	Japan Butyl Co., Ltd.			●					◆		*
	KRATON JSR ELASTOMERS K. K.			●					◆		
	Techno-UMG Co., Ltd.				●		●			※	*
	JAPAN COLORING CO., LTD.				●		●			※	*
	JM Energy Corporation ※ ¹					●	●				*
	LEXI Co., Ltd.		●				●				*
	Rapithela Corporation					●		●			
	JSR Active Innovation Fund, LLC,						●				
	JSR Trading Co., Ltd.	●	●	●		●	●				*
	Goko Trading Co., Ltd.			●		●	●				*
	JEY-TRANS CO., LTD.					●			◆		
JSR Logistics & Customer Center Co., Ltd.					●	●			※	*	
JSR ENGINEERING CO., LTD.					●	●			※	*	
JSR Business Services Co., Ltd.					●	●				*	
JN System Partners Co., Ltd.					●			◆			

※ 1 : JM Energy Corporation was transferred to an equity method affiliate as of April 1, 2020.

※ 2 : JSR Engineering Co., Ltd. merged with its parent company, JSR Corporation, on April 1, 2021.

Korea, Taiwan, China

Korea, Taiwan, China											
Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Digital Solutions	Life Sciences	Elastomer	Plastics	Others					
Korea	JSR Electronic Materials Korea Co., Ltd.	●							◆		
	JSR Micro Korea Co., Ltd.	●					●			※	*
	Kumho Polychem Co., Ltd.			●					◆		
	JSR Elastomer Korea Co., Ltd.			●				●			
Taiwan	JSR Micro Taiwan Co., Ltd.	●					●			※	*
China	JSR (Shanghai) Co., Ltd.	●	●	●			●				
	JSR Micro (Changshu) Co., Ltd.	●					●				
	MBL Beijing Biotech Co., Ltd.		●				●				*
	MBL Hangzhou Biotech Co., Ltd.		●				●				*
	Tianjin Kuo Cheng Rubber Industry Co., Ltd.			●					◆		
	ELASTOMIX(FOSHAN) CO., LTD.			●			●			※	
	JSR Trading (Shanghai) Co., Ltd.			●		●	●				*
	Techno-UMG Guangzhou Co., Ltd.				●		●				*
	Techno-UMG Hong Kong Co., Ltd.				●		●				*
Techno-UMG Shanghai Co., Ltd.				●		●				*	

※ 3 : JSR Corporation transferred all shares of Kumho Petrochemical Co., Ltd. to Kumho Petrochemical Co., Ltd. on July 1, 2021.

Southeast Asia, South Asia

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Digital Solutions	Life Sciences	Elastomer	Plastics	Others					
Indonesia	PT.ELASTOMIX INDONESIA			●			●			※	*
Vietnam	JSR Trading Vietnam Co., Ltd.					●		●			*
Thailand	JSR BST Elastomer Co., Ltd.			●			●			※	*
	ELASTOMIX (THAILAND) CO., LTD.			●			●			※	
	Techno-UMG Asia Co., Ltd.				●		●				*
	JSR Trading Bangkok Co., Ltd.			●		●	●				*
India	JSR Elastomer India Private Limit			●				●			

Europe

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Digital Solutions	Life Sciences	Elastomer	Plastics	Others					
Hungary	JSR MOL Synthetic Rubber, Ltd.			●			●				*
Germany	JSR Elastomer Europe GmbH			●				●			*
	Techno-UMG Europe GmbH				●		●				*
Swiss	Selexis SA		●				●				
Belgian	JSR Micro N.V.	●	●				●			※	
	EUV Resist Manufacturing & Qualification Center N.V.	●					●			※	
	KBI Biopharma BVBA		●				●				

North and Central America

Country	Companies' name	Business segment					Consolidated companies	Non-consolidated companies	Equity-method affiliates	RC reporting	Employees by gender
		Digital Solutions	Life Sciences	Elastomer	Plastics	Others					
USA	JSR North America Holdings, Inc.					●	●				*
	JSR Micro, Inc.	●					●			※	
	JSR Life Sciences, LLC		●				●				
	Crown Bioscience International		●				●				
	KBI Biopharma, Inc.		●				●				
	KBI Biopharma Boulder, LLC		●				●				
	MBL International Corporation		●				●				
	JSR Elastomer America, Inc.			●			●				
	Techno-UMG America, Inc				●		●				*
Mexico	ELASTOMIX MEXICO, S.A. de C.V.			●				●		※	
	JSRT Mexico S.A. de C.V.					●		●			*



JSR Group Sustainability Report 2021

Independent Review Report

August 23, 2021

To **Eric Johnson, Representative and CEO**
JSR Corporation

■ Objective of Verification

This verification is performed by the Responsible Care Verification Center with respect to the “JSR Group Sustainability Report 2021 (Online Version)” (hereinafter, “Report”), with the objective of reporting the opinions of specialists in the chemical industry concerning the following items.

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
- 2) The accuracy of provided information other than numerical data
- 3) Responsible Care activities (hereinafter “RC activities”) and sustainability activities
- 4) Characteristics of the Report

■ Verification Methodology

- At the Head Office: An inspection concerning the reasonableness of the aggregation method of numerical data reported from each site (office, plant) as well as the accuracy of information other than numerical data. It was conducted by interviewing relevant business managers and Report editors about the Report’s content as well as receiving necessary documents and explanation from relevant business managers and Report editors.
- At the Yokkaichi Plant: An inspection concerning the reasonableness of the methods of calculating numerical data reported to the Head Office and the accuracy of numerical data as well as the accuracy of information provided in the Report. It was conducted by interviewing relevant business managers and Report editors through a teleconferencing format linking the Head Office and Yokkaichi Plant, receiving necessary documents and explanations, and checking those documents and explanations against evidence.
- The numerical data and other information provided in the Report were inspected by sampling.

■ Opinion

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
 - A system has been built for the aggregation of environment-related data that automatically handles everything from the aggregation of plant data up to company-wide data compilation at the Head Office, and it is operated using a mechanism that does not involve human error.
 - For the process of calculating greenhouse gas emissions, formulas, coefficients, and other items used in calculation are presented to plants by the Head Office presents and then calculation takes place in plants and Group companies based on unified standards. A verification of the Yokkaichi plant confirmed the accuracy of aggregation.
- 2) The accuracy of provided information other than numerical data
 - Information provided in the Report is accurate. Some instances of inappropriate expressions and difficult-to-understand text were identified at the drafting stage; however, they all have been corrected in the current report.
- 3) RC activities and sustainability activities
 - We positively acknowledge the fact that CSR activities fulfilling the company’s social responsibility are being further evolved and that sustainability activities for the creation of value that contributes to all stakeholders are being advanced.
 - The company is enthusiastic about applying advanced initiatives, such as the use of drones in accident prevention activities and the use of virtual reality (VR) in on-site education, and is achieving good results through such initiatives. We positively acknowledge the fact that the company is working to improve safety through technological innovation and thereby enhancing its corporate sustainability.
 - We positively acknowledge that, as a global corporation, the company has begun to disclose information on occupational accidents at its overseas Group companies.
 - We positively acknowledge the fact that the Yokkaichi Plant has continued to receive no environmental complaints since

FY2008.

- With respect to the problem of climate change, we very positively acknowledge the fact that the company expressed support for the TCFD Recommendations in October 2020 and is implementing responses to the Recommendations, conducting scenario analyses, and conducting impact assessments for climate change risks.

4) Characteristics of the Report

- The report provides sufficient page space to cover materiality (priority issues) arranged by ESG (Environmental, Social and Governance) and reports on the content of RC activities and sustainability activities, including their negative aspects. Numerical data are summarized as ESG Data, thereby providing a format that is easy for stakeholders to understand.



OZAKI Satoshi

Chief Director, Responsible Care Verification Center
Japan Chemical Industry Association

JSR Group

Policy, Principle, Philosophy

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JSR Corporation

Created September, 2021

Corporate Mission, Corporate Slogan, Management Policies, Course of Action

Corporate Mission

Materials Innovation

We create value through materials to enrich society, people and the environment.

The corporate mission of JSR Group clearly identifies the company's raison d'etre. By supplying materials that are indispensable to human societies, JSR aims to be trusted.

Corporate Slogan

With chemistry, we can.

JSR is determined to keep providing solutions that benefit not only customers but also the broader society. The company's slogan highlights the word "chemistry" to succinctly convey its corporate identity and business positioning, and also expresses the confidence JSR professionals feel in the face of every challenge.

Management Policies - JSR's Fundamental Pillars of Management

Continuous creation of businesses

As society evolves, so does the demand for specialized materials and advanced products. JSR continuously evolves to anticipate and responds to changing marketing needs and, in doing so, achieve dynamic growth.

Enhancement of corporate culture

As society evolves, so will our organization. JSR will build on its existing positive corporate culture to create an organization and management style with the vitality to keep evolving.

Increase in corporate value

JSR will position itself to increase our overall corporate value by creating businesses through materials with focuses on customer satisfaction and the fulfillment of employees.

Management Policies - Responsibility to Our Stakeholders

Responsibility to our customers / business partners

When interacting with our business partners and customers, the JSR Group will:

- Constantly evolve to meet the demand for new materials
 - Always strive to increase customer satisfaction
 - Act in good faith and maintain fair and equitable business relations
- Continue to be socially and environmentally conscious throughout the supply chain

Responsibility to our employees

All employees should expect:

- To be evaluated and rewarded based on fair standards
- Continuous opportunities to grow by challenging
- Acceptance of the diversity of fellow colleagues and to be provided a place where all employees can work together as a team

Responsibility to society

All members of the JSR Group will honor our responsibility to both the local and global communities through:

- Responsible and respectful business practices (Responsible Care) that consider the environment and safety
- Support of environmental conservation by providing eco-friendly products
- Reduction of our environmental impact throughout the entire
- Active contribution to conserving biodiversity throughout its business activities and the entire product lifecycle

Responsibility to shareholders

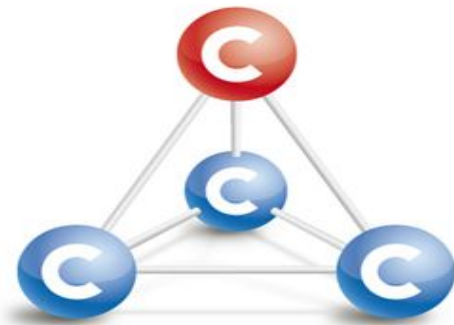
Group will maintain its responsibility to its shareholders by:

- Aiming to increase corporate value by creating business opportunities through materials
- Constantly enhancing its management efficiencies
- Inspiring trust by being highly transparent and conducting sound corporate management practices

Course of Action : 4C

Challenge

All employees of JSR Group should share a common, global focus and desire to succeed. Employees should feel confident to autonomously take on new challenges, learning from successes while viewing setbacks as opportunities to learn, grow and improve.



CHALLENGE
COMMUNICATION
COLLABORATION
CULTIVATION

Communication

All employees should feel comfortable and confident maintaining open lines of bi-directional communication at all levels within the JSR Group. Employees should strive for organizational transparency through direct conversations as the best means to share value and achieve common goals, especially in the face of growth and diversification.

Collaboration

Employees will work together in the spirit of cooperation valuing common, corporate goals over internal or departmental barriers. Employees will also be encouraged to actively collaborate with external resources and not be bound to conventional ideas.

Cultivation

All employees will cultivate an environment that supports bi-directional communication between managers and subordinates and provides opportunities to develop together as individuals and as members of productive, supportive teams.

Environment

Responsible Care Policy

Seeing industrial safety and accident prevention, environmental conservation, and product safety as key foundations for its business activities, JSR Group conducts all business undertakings under the following Responsible Care® (RC) policy.

- 1) We will strive to ensure the safety of employees and local communities and to contribute to environmental conservation and a sustainable global environment by ascertaining risks associated with our business activities and executing countermeasures.
- 2) We will strive to comply with laws, ordinances, and voluntary regulations by gathering information on and ensuring the full development of laws and regulations required for business activity.
- 3) We will strive to ensure the safety of our products by developing products with consideration for safety, health, and the environment and providing information about them.

Philosophy concerning Climate Change

Environmental problems attributable to global warming (e.g., forest fires, droughts, water shortages, rising sea levels, threats of extinction, and impacts on ecosystems) are occurring on a global scale. Such problems are also seen in Japan. They are represented by floods caused by torrential rains, health problems such as heatstroke that result from more and more days of extreme heat, and such impacts on the ecosystems as coral bleaching.

JSR Group recognizes this problem as an important issue. Therefore, with the aim of helping realize a low-carbon society, we strive to lower our GHG emissions by, for example, reducing the amount of energy needed in the various processes of producing and supplying our products.

Amid a global trend whereby businesses are managing greenhouse gases (Scope 1 to 3) indirectly emitted from their supply chains and disclosing their emissions, JSR Group calculates and ascertains its emissions based on the Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain issued by Ministry of the Environment, Government of Japan.

Philosophy concerning Water Resources

Water is an essential resource for all living beings. And fresh water, in particular, is a limited and precious resource throughout the world. In Japan, as in other countries, water resources are being affected by natural disasters caused by abnormal weather events, some of which are a result of climate change. This makes the appropriate management of those resources vital.

JSR Group uses water for drinking, of course, but also as a raw material and coolant in its manufacturing processes. We strive to recycle water in our processes and, after using it, to appropriately purify it before discharging it to rivers.

Philosophy concerning Industrial Waste Reduction

In Japan, waste disposal is becoming tougher as a result of waste import regulations in Asian countries. At the same time, more and more people around the world are demanding that society become more recycling-oriented, as the discharge of plastic waste into the seas is damaging marine ecosystems and environments and thus becoming a major global environmental issue.

JSR Group is controlling the amount of waste it produces, sorting waste, and searching for recycling locations with the aim of creating an industry-led recycling-based society.

Philosophy concerning Biodiversity Conservation

JSR Group has formed biodiversity policies based on issues identified through conservation activities conducted in the past.

JSR Group Biodiversity Policies

To contribute to the establishment of a sustainable society, JSR Group strives to identify how our business activities depend on and impact biodiversity, and to promote efforts in consideration of biodiversity.

1. We prioritize biodiversity conservation in procuring naturally derived raw and processed materials.
2. We work to make the green spaces of our business establishments biodiversity-friendly.
3. We strive to develop biodiversity-friendly products.
4. We emphasize staff engagement and cooperation with local communities.

established in April 2012

Philosophy concerning Chemical Management

Under its CSR advancement scheme, JSR Group advances measures pertaining to chemical management based on promotion items and concrete action plans founded on those items that are established by the Responsible Care Advancement Committee.

Policy on Chemical Management

In light of recent global trends in chemical management, JSR has established the following three basic policies in its environment and safety management organization.

- 1) Instead of hazard-based management,^{*1} we will endeavor to implement risk-based management.^{*2}
- 2) We will strive to manage our entire supply chain by utilizing a globally standardized method.
- 3) We will strive to comply with regulations and promote self-motivated initiatives to ensure the safety of our products.

*1 Management based solely on the hazardous properties of substances

*2 Management based on exposure to the hazardous properties of substances

Social

Philosophy and Course of Action for Occupational Health and

Philosophy for Occupational Health and Safety

At JSR Corporation, safety is our highest priority and the foundation of all of our activities. Accordingly, we will create safe worksites and strive to maintain physical and mental health, with the goal of ensuring a safe return home at the end of each workday.



Courses of Action of Philosophy for Occupational Health and Safety

1. No matter the situation, we will act with safety foremost in mind.
2. We will comply with established rules and never fail to act in accordance with safety basics.
3. We will maintain safety by identifying and eliminating both actual and potential hazards.
4. We will strive to create comfortable work environments and promote physical and mental health.



The safety monument

- Through communication and ingenuity, we will aim to
5. achieve 100% employee participation in all safety activities.

Policy for Security Management

(1) Extremely Safe Behavior

The Philosophy for Occupational Health and Safety has penetrated through the organization, the Courses of Action are established as applying to everyone, and safety competency is improving through independent safety activities.

(2) Enhanced Human Resources and Organizational Strength

High personal skills, organizational ability, and a healthy organizational culture are being maintained with the establishment and execution of the education and training programs needed for organizational management.

(3) Optimal Risk Management and Security Measures

Security measures corresponding to risk importance are being efficiently and effectively implemented using new technologies.



Social

JSR Group's Human Rights Policy

This policy explains in concrete terms JSR Group's thinking with respect to human rights and presents our pledge to make efforts in line with that thinking. It is based on JSR Group's "Code of Conduct for Respecting Human Rights," which is established in the "JSR Group Principles of Corporate Ethics." We position it as the prevailing policy of all documents and norms associated with actions concerning respect for human rights in JSR Group's business activities.

1. Philosophy

JSR Group recognizes the importance of such international norms as the Universal Declaration of Human Rights, the UN Global Compact, and the UN Guiding Principles on Business and Human Rights. We agree with the thinking they represent and will respect human rights accordingly. We also understand that we must fulfill our responsibility to respect human rights in all of our business activities.

2. Respect for human rights

JSR Group respects the dignity and human rights of all people. We pledge to comply with all international norms and local laws and regulations that concern respect for human rights in the countries and territories where we do business. When a local law or regulation is inconsistent with international norms, we will do our best to find ways of respecting international norms for human rights to the greatest extent possible. Moreover, we will not discriminate on the basis of gender, age, nationality, race, ethnic group, origin, religion, beliefs, social status, physical disability, or sexual orientation for any reason. Nor will we accept any type of harassment that degrades an individual's dignity.

3. Avoidance of complicity in violating human rights

We apply this policy to all JSR Group corporate officers and employees, and thereby demand that they respect human rights and not infringe upon rights or engage in unfair discrimination. We also strive to ensure that they do not become complicit in human rights violations, even indirectly. Moreover, we endeavor to prevent or lessen negative effects on human rights that are directly tied to JSR Group's businesses, products, and services, and continually urge our business partners and suppliers to support our policy and to adopt a similar policy.

4. Employment and labor

Prohibition of child labor and forced labor

JSR Group prohibits forced labor as well as labor by children who have not reached the employment age stipulated in the laws of the nations and regions in which we do business. We also demand that our business partners and suppliers do the same.

Respect for basic labor rights

JSR Group complies with the labor laws of the nations and regions where we operate. We also respect employees' right to organize and right to collective bargaining, in accordance with the applicable local laws and regulations.

Elimination of discrimination

JSR Group respects every individual's diversity, identity and human rights and strives to ensure equal opportunity without discrimination in every aspect of its dealings with employees, including recruitment, placement, promotion, and skills development.

5. Response when problems occur

If a business activity by JSR Group has a negative consequence on human rights, we will respond swiftly and appropriately to provide relief and rectification. Moreover, if a negative consequence on human rights is caused by a business partner or a supplier, we will utilize our influence on that partner or supplier to encourage them to make an appropriate response.

6. Prevention of human rights violations

JSR Group works to prevent human rights violations by acting in accordance with the “human rights due diligence” mechanism. We also provide appropriate education and training to all employees to ensure the dissemination of this policy throughout the Group.

Date of establishment : September 1, 2021
Eric Johnson
Representative Director, CEO JSR Corporation

Philosophy concerning Human Rights

Philosophy concerning Respect for Human Rights

JSR Group's Principles of Corporate Ethics establish its philosophy concerning human rights.

Code of Conduct for Respecting Human Rights

① We will respect and uphold basic human rights, such as United Nations "The Universal Declaration of Human Rights", United Nations "Guiding Principles on Business and Human Rights", declared internationally and protected under constitution and legal precedents of respective countries, and will not infringe basic human rights.

Code of Conduct for Fair and Proper Transactions

④ With regard to purchase transactions, we shall conduct transactions that are fair, transparent, and based on economic rationality, as well as consider our responsibility to society, such as compliance with laws and ordinances, protection of resources, environmental conservation, safety and human rights.

Code of Conduct for Providing a Comfortable Work Environment

⑦ In the event that a staff member reports the violation or possible violation of the law and/or the Principles of Corporate Ethics to his/her superiors and/or internal/external hotline, we shall fully protect the said staff member's identity and protect him or her from unfavorable treatment.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Philosophy concerning Inhumane Acts (Harassment)

JSR Group's Principles of Corporate Ethics establish its philosophy concerning inhumane acts (harassment).

Code of Conduct for Providing a Comfortable Work Environment

⑤ We shall provide a workplace free from sexual harassment and any harassment arising from positions of power. In addition, we will not engage in or make verbal comments with sexual connotations that will make counterparts feel uncomfortable.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Philosophy concerning Prevention of Discrimination

JSR Group's Principles of Corporate Ethics establish its philosophy concerning prevention of discrimination.

Code of Conduct for Providing a Comfortable Work Environment

- ① We shall ensure the fair treatment of employees, based on each person's tasks, roles, and level of commitment.
- ③ We shall respect the human rights and diverse characteristics of all individuals, and shall not discriminate against gender, age, nationality, race, ethnic group, origin, religion, beliefs, social status, physical disability or other relevant conditions when determining employment status and/or working conditions.
- ④ We shall not force religion and/or belief on others.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Philosophy concerning Child Labor and Forced Labor

JSR Group's Principles of Corporate Ethics establish its philosophy concerning child labor and forced labor.

Code of Conduct for Respecting Human Rights

- ③ We shall never allow child labor or forced compulsory labor, whether at the JSR Group or in the workplaces of business partners and collaborating companies.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Philosophy concerning Collective Bargaining

JSR Group enters into labor agreements with labor unions based on its Principles of Corporate Ethics, which establish its philosophy concerning collective bargaining.

Code of Conduct for Respecting Human Rights

- ② We will abide by national and international labor codes and respect workers' right of association and right for collective negotiation in the realm of basic labor rights.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Philosophy concerning Customers

JSR Group's Management Policies establish its philosophy concerning its customers.

Management Policies

Responsibility to Our Stakeholders

Responsibility to Our Customers / Business Partners

- Constantly evolve to meet the demand for new materials
- Always strive to increase customer satisfaction
- Act in good faith and maintain fair and equitable business relations
- Continue to be socially and environmentally conscious throughout the supply chain

Philosophy concerning Social Contribution

JSR Group has been involved in various social contribution programs with a focus on community activities. In January 2009 we established our "Basic Approach to Social Contribution" as a philosophy aimed at further strengthening our activities. We are currently implementing the initiatives outlined in this philosophy.

Basic Philosophy concerning Social Contribution

- (1) Our Corporate Mission dictates that we contribute to society through our business activities. Further, we are actively engaged in providing solutions to social requirements and issues as a responsible member of society.
- (2) We are continuously engaged in positive social contribution activities, capitalizing on the chemical and technical knowledge and skills that form the core of JSR business.
- (3) Every employee is a point of contact between the Company and society, and we actively support our employees in their voluntary participation in social contribution activities.

Basic Approach to Social Contribution, established in January 2009

Fundamental Philosophy concerning Employees

Fundamental Human Resource Philosophy

JSR Group drives its organization and personnel forward based upon the following measures:

1. Develop mechanisms and a corporate culture with a healthy balance of 'Freedom' and 'Discipline,' guided by the Course of Action's 4Cs to enable managers and junior staff to grow together, help all employees accurately perceive and solve issues in order to foster a JSR that not only maintains its organizational capacity, but ensures its future growth.
2. Promote the globalization of JSR corporation employees while developing a globalized workforce within JSR Group as well as train and manage the Group's human resources on a global level.
3. Generate synergies which take full advantage of the increasing range of diversity (in terms of nationality, culture, gender, values, etc.) throughout JSR Group's vast human resource pool.

Human Resource Development Philosophy

We are working on human resource development with the understanding that it is the greatest priority for achieving sustainable, long-term corporate growth. In particular, we are promoting human resource development in order to strengthen our organizational capacity by implementing the Course of Action "The 4Cs" - "Challenge," "Communication," "Collaboration," and "Cultivation" - of our Course of Action at a higher level, and with focus on "skill/know-how" and "awareness/motivation."

Human Resources = Skill and Know-How x Motivation

As a key goal, we will also strengthen our employees' international communication abilities.

(1) Human Resource Development Policy

1. Respect each employee's desire for personal growth and provide adequate support for employees who take the initiative to raise their skills and develop their careers.
2. Based on the idea that the development of employee skills is the foundation of a company, make "growth through work" a primary consideration and, from a long-term perspective, conduct systematic, planned, and continuous training at all group companies to support this.

(2) Types of Personnel Sought by JSR

All Employees

1. Professionals who are competitive on a global level in all areas of their responsibility.
2. Individuals who are willing to take on new challenges and who respond flexibly to changes in the environment, supporting innovation and advancement without settling for the status quo.
3. Team players with high ethical standards who emphasize communication, collaboration, cultivation, and taking on challenges.

Management

4. Supervisors who can delegate work and responsibilities to their junior staff while also leading by example, always mindful of organizational management and human resource development.
5. Leaders who effectively oversee the achievement of organizational goals and can also lead reforms.

Work-Life Management Philosophy

JSR is actively promoting its Work-Life Management initiative. Employees are encouraged to not only develop work-related skills, but to also actively participate in social, and personal activities (e.g., social and community groups, family, volunteer activities, self-development, and hobbies). JSR believes that by encouraging our employees to become well-rounded individuals, and by finding a personal sense of self-fulfillment and satisfaction that they will then be able to bring that energy into their work.

JSR encourages all of our employees to closely manage their personal time and maintain a balanced work schedule. We are also working on implementing various systems that support flexible work styles, with special consideration for childbirth, childcare and family-nursing needs.

Work-life management is vital in the implementation of diversity management, because in order to create an organization with a diverse workforce, we must also promote a corporate culture that is open to diverse values and work styles.

We also ensure wages at wages that exceed the minimum wage based on the laws and ordinances stipulated by each country / region, and strive not to violate working time regulations.

Philosophy concerning Employees' Mental and Physical Health

JSR feels that a healthy mind and body are extremely important for employees and their families to live happy lives. We also feel that they are imperative in the creation of a productive and vibrant workplace. Because of this, we have adopted various measures to help our employees work in good health, both mentally and physically.

Philosophy concerning the JSR Workers' Union's activities

Through routinely-convened labor-management councils, labor agreement revision consultations and the like, we strive to maintain a relationship with the union that allows constructive exchanges of opinions. We also work with the union to create better working environments from the standpoints of "wage policy", "workplace environment policy", "welfare policy", "leisure time, public relations, and volunteer activities policy" and "organization policy", which are important matters for the union.

JSR Group CSR / Sustainable Procurement Policy

JSR Group's Corporate Mission is "Materials Innovation - We create value through materials to enrich society, people and the environment."

Based on this, we make CSR activities a core part of our everyday operations. Our commitment to CSR includes establishing "The JSR Group Principles of Corporate Ethics" and consolidating our responsibilities to our customers/business partners, to our employees, to society, and to shareholders under management policies we call "Responsibility to Our Stakeholders."

At JSR Group, we believe that developing CSR supply chain management will lead to mutual prosperity for both the Group and our business partners. It was with this in mind that we established this JSR Group CSR/Sustainable Procurement Policy.

Below are listed 36 items in six areas that we ask our business partners to strictly observe. We call on our partners to accept them and put them into practice, keeping in mind the intent described above and fully understanding their content.

It should be understood that this policy may undergo review and revision as required in response to changes in society's demands on us.

I. Establishing and Maintaining a CSR Advancement Structure

Companies must of course comply with the laws and regulations of each country in which they do business. But they also have a responsibility to abide by social norms and meet society's expectations.

For the following Areas II to VI (fair corporate activity, human rights and labor, environmental conservation, health and safety, and information security), companies that do business with JSR Group must establish CSR mechanisms to ensure that their business activities do not negatively affect society and the environment and, if negative effects do occur, to deal with them immediately.

The following actions are required:

1. Incorporate CSR mechanisms into the company's policies and code of conduct, make
2. Have raw material suppliers and other business partners also understand and execute
3. Voluntarily announce the status of their initiatives through environmental reports, CSR

II. Fair Corporate Activity

In the processes of producing products and services, companies must engage in business activities that are based on fair, transparent, and free competition.

The following actions are required:

1. Prohibition of corruption and bribery
2. Prohibition of giving or receiving inappropriate favors or payoffs
3. Prohibition of abuse of superior position
4. Prohibition of anti-competitive conduct
5. Provision of accurate product and service information
6. Respect for others' intellectual property rights
7. Proper import/export management
8. Proper tax payment according to the laws and regulations of each country
9. Prevention and early detection of improper behavior by maintaining an internal reporting system

III. Human Rights and Labor

Companies must act in accordance with the laws of each country and international standards, respect basic human rights, and give attention to the following items to ensure that their business activities do not violate human rights, either directly or indirectly.

The following actions are required:

1. Prohibition of forced labor
2. Prohibition of child labor and protection of young workers
3. Prohibition of inhumane treatment
4. Prohibition of discrimination in terms of employment, promotion opportunities, treatment, etc.
5. Payment of fair wages exceeding the minimum wage amount
6. Reduction of excessive working hours by proper management of working hours and non-work days
7. Respect for employees' freedom of association and right to collective bargaining

IV. Environmental Conservation

Companies have a responsibility to comply with the laws and standards of each country concerning environmental conservation, to specify and manage factors that impact on the environment by building a management system, and to work toward preserving the environment in their processes of producing products and services.

The following actions are required:

1. Establishment and operation of an environmental management system
2. Management of chemical substances and prevention of pollution
3. Reduction of environmental burden
4. Reduction of energy consumption and greenhouse gas (GHG) emissions
5. Resource conservation, resource recycling, and proper waste disposal
6. Conservation of water resources and reduction of water consumption
7. Preservation of biodiversity and reduction of negative impact
8. Disclosure of the status of environmental conservation initiatives

V. Health and Safety

Companies must comply with the laws and standards of each country concerning occupational health and safety and establish management systems and mechanisms to prevent workplace accidents, promote the health and safety of employees, and create comfortable workplace environments.

The following actions are required:

1. Safety measures for machinery and equipment
2. Maintenance of workplace safety
3. Maintenance of workplace health
4. Employee health management
5. Pre-emergency preparedness measures

VI. Information Security

Companies must properly manage and protect the information they obtain through business activities, take protective measures against threats to their computer networks, and manage the confidential information of customers and third parties in a manner that prevents leaks.

The following actions are required:

- 1 . Compliance with the laws and regulations of each country concerning information security
- 2 . Protection against threats to computer networks
- 3 . Prevention of personal information leaks
- 4 . Prevention of leaks of confidential information pertaining to customers and third parties

Enacted on December 10, 2018

JSR Corporation

Governance

Corporate Governance

Please refer to JSR's Corporate Governance Report by clicking the URL shown below. The following are the gist of the report.

https://www.jsr.co.jp/company/assets/pdf/governance_20210702.pdf

Basic Views on Corporate Governance

It is the JSR Group's goal to make steady progress in realizing its corporate mission (Materials Innovation: We create value through materials to enrich society, people and the environment). This shall be done through efficient and transparent business management, by sustaining sound and healthy business practices. The Group will also continuously strive to create new corporate value with the hope of becoming an attractive corporation that can earn the trust of and satisfy the interests of all our stakeholders.

The Company therefore has been and will continue focusing on the enhancement of corporate governance as an important management challenge.

Corporate governance structure

As a company with audit & supervisory board members (formerly known as statutory auditors), JSR principally monitors and oversees the execution of duties by directors and the management through its Board of Directors and audit & supervisory board members. JSR has continuously strengthened the function of management supervision, improved efficiency in decision making and execution of business duties, and enhanced the transparency and soundness of business management through the introduction of an officer system and the appointment of outside directors and audit & supervisory board members, who are independent from the Company and have extensive business experience and a high level of expertise.

Composition of Board of Directors

The current Board of Directors consists of nine (9) directors (four (4) of whom are independent outside directors with independence and abundant experience and extensive expertise in the management of corporations and businesses). Koichi Kawasaki, who is a Director but not a CEO or COO, serves as the board's chairperson. In principle, the Board of Directors meets once monthly to establish the direction of management strategies, make important decisions, and supervise the execution of duties by Directors and Officers.

Composition of Audit & Supervisory Board (formerly known as Statutory Auditors Board)

The current Audit & Supervisory Board consists of three (3) audit & supervisory board members, two (2) of whom are independent outside audit & supervisory board members with extensive and sophisticated expertise (one is a lawyer and the other is a certified public accountant qualified as a certified public tax accountant as well). In the future, the Company will elect two independent outside audit & supervisory board members with vast experience and extensive and sophisticated expertise in such fields as law, accounting, and etc., to effectively audit the execution of duties by directors and the management.

Policies on Remuneration for Directors and framework for determining the remuneration

Remuneration Advisory Committee

JSR established the Remuneration Advisory Committee of which majority members are independent outside directors and the chair of which is a lead independent outside director in order to ensure the objectivity and transparency of its directors' remuneration scheme. The committee deliberates the basic policy of remuneration, the remuneration structure, the mechanism of a performance-based remuneration, the setting of targets, and assessment of performance, and submits its findings to the Board of Directors.

Policies on Remuneration for Directors

JSR establishes basic policies on remuneration with the objectives of training and recruiting highly globally-minded and diverse management personnel to ensure the corporate group's competitive advantage as a global company; setting short-term, medium-term, and long-term incentives for executives for the sharing of profits with shareholders; and ensuring the unfailing execution of management strategy and business strategy while maintaining transparency.

(1) The remuneration system shall be one that can attract, retain, and reward diverse and highly talented human resources, regardless of nationality, to build and improve competitive advantage and further advance global management.

(2) The system shall provide managers with a healthy entrepreneurial spirit oriented toward achieving operational objectives in management strategy for the Company's sustained development in order to motivate them to achieve those objectives.

(3) The remuneration system shall improve medium- and long-term corporate value based on the active sharing of profits by JSR directors with shareholders through stronger stock-holding during their time as directors.

Remuneration for JSR directors previously consisted of a fixed basic remuneration, an annual bonus linked to company-wide business performance in each fiscal year, a medium-term business performance-based bonus linked to medium- and long-term company-wide business performance, and remuneration for granting restricted stock shares (non-monetary remuneration) for the purpose of promoting the early sharing of value with shareholders. However, beginning in FY2021, the Company is abolishing the medium-term business performance-linked bonus and introducing performance-linked stock compensation (hereinafter “performance share unit”) to be issued afterward. It should be noted with respect to the medium-term performance-linked bonus that, in the future, no cash payments will be made based on the stipulation of the amount of such remuneration, except for cases in which the performance measurement period has already started. Additionally, with respect to shares with restriction on transfer, the Company has revised the period for lifting the restriction on transfer as well as the maximum monetary amount and maximum number of shares. Remuneration for outside directors and audit and supervisory board members consists of basic remuneration only in consideration of their roles.

Policies and procedures for nominating candidates for Directors and Audit & Supervisory Board members

Nomination Advisory Committee

1) JSR established the Nomination Advisory Committee of which majority members are independent outside directors and the chair of which is an independent outside director to ensure the transparency of the policy and procedures of nominating candidates for directors, audit & supervisory board member and officers with directorship status (including senior officers). At the committee, any of the members is not eligible for voting in the agenda in which such member has special interest.

2) The committee deliberates the standard for the diversity in breadth of knowledge, experience, and capability necessary for the Board of Directors, criteria and procedures for the nomination, and candidates for future appointment as president, directors, officers with directorship status (including senior officers), and audit & supervisory board members, and submits its findings to the Board of Directors. In order to ensure transparency of the deliberation, the committee takes necessary measures as deliberation solely among outside independent directors for the agenda relating to appointment/reappointment or dismissal of CEO and/or President.

3) The committee systematically develops and selects candidates for the successor to CEO and/or President in an objective and transparent manner by providing the pool of candidates with necessary training and coaching to enhance skills and leadership and by actively participating in selection process through interviews etc.

Criteria for nominating candidates for Directors

1) When nominating candidates for directors, JSR makes it a rule to ensure an appropriate balance among diversity in breadth of knowledge, experience, and capability essential to the Board of Directors and the size thereof in order to make important management decisions and oversee the execution of duties in appropriate and timely fashion.

JSR nominates persons who are mentally and physically sound and have an exceptional personality and popularity, and high principles and ethical view.

2) Candidates for inside directors:

JSR nominates persons who have extensive knowledge, experience, and high capability with a superior track record in such fields as business management (including global one), R&D, manufacturing, manufacturing technology, human resources, and finance and accounting, etc.

3) Candidates for outside directors:

JSR nominates persons who have independence, vast experience and extensive expertise of management of the major companies in various fields and of business management both in Japan and overseas as well as the capability to actively express opinions and raise issues on growth strategy and enhancement of governance from a broad perspective.

4) The Nomination Advisory Committee will deliberate and report to the Board of Directors in a timely fashion when the committee judges there arises a reason that necessitates dismissal of CEO and/or other directors.

Criteria for nominating candidates for audit & supervisory board member

1) From the perspective of ensuring the transparency and soundness of business management through auditing the process of directors' decision making and execution of duties in accordance with laws and regulations, such as the Companies Act, the articles of incorporation and internal rules, JSR nominates persons with vast experience and extensive and sophisticated expertise necessary for audit (including one person with sufficient knowledge of finance and accounting) among those who are mentally and physically sound and have an exceptional personality and popularity, and high principles and ethical view.

2) Regarding candidates for outside audit & supervisory board members, in particular, JSR nominates persons who have independence and extensive experience and knowledge of laws and accounting.

Views on capability and diversity of the Board of Directors as a whole

1) With the aim of overseeing important management decision making and the execution of duties in appropriate and timely fashion in order to increase corporate value over medium and long-term, JSR considers it important that the Board of Directors as a whole effectively utilize both i) the extensive knowledge, experience and high capability in such fields as business management (including those of global businesses), R&D, manufacturing, manufacturing technology, human resources, and finance and accounting, etc. held by inside directors and ii) vast experience and extensive expertise of management of the companies in various fields and business and management both in Japan and overseas, and capability to actively express opinions and raise issues on growth strategy and enhancement of governance from a broad perspective held by independent outside directors and that the Board of Directors thus ensures such diversity in knowledge, experiences (including international ones) and skills as the Board of Directors deems fit and necessary.

2) The Company believes that its Board of Directors has acquired necessary diversities so that the Board is functioning effectively at present.

JSR will continue to ensure the sufficient diversity in knowledge, experience, and capability that are essential for the Board of Directors and maintain its optimum size but not exceeding 12 people in accordance with the deliberation to be made by the Nomination Advisory Committee and with its business strategies in the future.

Securing equitable Shareholders' rights

JSR has continued to develop an environment where shareholders can appropriately exercise their voting rights at the ordinary general meeting of shareholders. JSR will continue to implement the following measures: holding an ordinary general meeting of shareholders earlier than other companies (in the middle of June each year); disclosure on the website before sending the notice of convocation; introducing an electronic voting platform via the Internet, etc.; participating in the electronic voting platform for institutional investors; enhancing contents of the convocation notice; and translating the convocation notice into English, etc.

Reduction of cross-shareholdings

JSR holds listed shares as cross-shareholdings* only after comprehensively reviewing the rationality of holding such shares in the light of business management strategies and economics of such shareholdings while it has been reducing cross-shareholdings when holding such shares has become irrational.

The Board of Directors periodically reviews the status and the policies for holding individual cross-shareholdings by taking such factors into consideration as the purpose of holding, potential risk and expected return, and cost of capital required for holding such individual shares.

When exercising voting rights of cross-shareholdings, JSR comprehensively determines to vote for or against their proposals after reviewing whether or not their corporate governance system and proposals will contribute to the improvement of their corporate value over the medium and long-term.

Ways to avoid conflict of interest transactions arising from the act of Directors

- 1) In accordance with the Companies Act and JSR's "Regulations of the Board of Directors", JSR has obtained the Board of Directors' prior approval for competitive and conflict-of-interest transactions and reported important facts regarding such transactions to the Board of Directors after completion.
- 2) In accordance with applicable laws and regulations, JSR has disclosed the outline of transactions with related parties in notes to consolidated financial statements of the Securities Report and notes to non-consolidated financial statements of the ordinary general meeting of shareholders.
- 3) JSR has been determining the terms and conditions for the transactions with major shareholders by negotiating prices considering market conditions in the same way as it deals with third parties.

Compliance

Code of Conduct and Corporate Ethics

JSR Group has established a Code of Conduct as the rules that all JSR Group companies, their directors and employees (full-time, contract, part-time, and temporary employees as well as employees on short-term contracts) should comply with, in order to execute the management policies "Our Responsibility to our Stakeholders" in engaging in business activities. JSR Group shall not require its directors or employees to act in violation of the Code of Conduct. Additionally, JSR Group shall not disadvantage any director or employee who refuses to execute an order to perform an act that is in violation of the Code of Conduct for the reason of said refusal.

Please click on the following link for the English version of "The Group Principles of Corporate Ethics"

http://www.jsr.co.jp/csr/pdf/CoC_en.pdf

Code of Conduct for anti-bribery and anti-corruption

The JSR Group established "Standards on Providing and Accepting Gifts and Entertainment" and "Regulations for Compliance with Anticorruption Laws" based on the principles of anti-bribery and anti-corruption established in "The JSR Group Principles of Corporate Ethics".

Code of Conduct for Gifts and Entertainment

- 1) Whether inside or outside the country, we shall not give gifts to and/or entertain politicians, government officials or other relevant parties in a manner that may generate profits through illegal means or violate bribery regulations.
- 2) When making contributions to political figures/parties or other organizations, we shall do so in a proper manner and observe all applicable laws and regulations, such as the Political Funds Control Law.
- 3) We shall not give or receive gifts and provide or receive entertainment to or from customers, suppliers and other stakeholders, which may be regarded as bribery or unfair acts. We shall not be involved in the exchange of gifts or entertainment that may go beyond the accepted social norms.
- 4) Within the JSR Group, we shall not give and/or receive gifts and/or provide entertainment.

The JSR Group Principles of Corporate Ethics, revised in January 2021.

Policies Protection of Whistleblowers

The JSR Group specifies its policies on protection of whistleblower in its "JSR Group's Principles of Corporate Ethics" as below;

Code of Conduct for Providing a Comfortable Work Environment

7) In the event that a staff member reports the violation or possible violation of the law and/or the Principles of Corporate Ethics to his/her superiors and/or internal/external hotline, we shall fully protect the said staff member's identity and protect him or her from unfavorable treatment.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Policies against Antisocial Forces

The JSR Group expresses its principles against antisocial forces in "The JSR Group Principles of Corporate Ethics".

Code of Conduct against Antisocial Forces

Our basic policy, upheld by our top executive and company as a whole, is to reject any relation with antisocial forces including any business transactions, and firmly reject any demand with collaboration from police and external organizations specialized in security issues.

The JSR Group Principles of Corporate Ethics, revised in January, 2021.

Information Security Policy

JSR Group endeavors to manage information in an appropriate and secure manner by establishing Information Security Policy and by thoroughly disseminating the policy to its employees.

Information Security Policy

- 1) The JSR Group, by complying with laws and regulations and by observing other social norms relating to the handling of information, will protect information that belong to the JSR Group, its customers, business partners and other third parties.
- 2) The JSR Group will strive to develop and actively use its information assets for the efficient execution of its business. The Group's officers and employees will only use these information assets for the purposes of their work and within the scope of their authority.
- 3) The JSR Group will improve organizations and systems, provide education on information security, thoroughly disseminate this policy and related regulations, and implement measures to ensure information security.
- 4) The JSR Group will implement appropriate human, organizational, and technological measures and work to prevent unauthorized access to information assets from outside the company, as well as leaks, falsification, loss, theft and destruction of information assets.
- 5) If an information security-related problem occurs, the JSR Group will promptly identify the cause and take measures to minimize damage and prevent recurrences.
- 6) The JSR Group will periodically assess and review its information security measures to respond appropriately to changes in external environments.

Established in January 2006

Policy for Bribery Prevention

1. Prevention of bribery

JSR will not seek to gain profit or benefit, directly or indirectly, from any person who is subject to the regulations of anti-corruption laws, including commercial bribery regulations, by wrongfully influencing said person's professional conduct, nor provide benefit or promise to provide benefit¹ to said person, either in Japan or abroad.

2. Anti-bribery system

JSR will ensure that all officers, employees, etc., comply with this policy. If an act by an officer, employee, etc., that violates, or may violate, this policy is discovered, JSR will have the discovering person report the act using the internal reporting system or another channel and will not engage in retribution against said reporting person.

3. Audits and system reviews

JSR will conduct periodic internal audits and also evaluate and review its anti-bribery system to maintain a continuous and effective bribery and corruption prevention system.

4. Education

JSR will conduct appropriate education to officers, employees, etc., to ensure their compliance with this policy.

5. Recording and retaining transaction details

JSR will accurately and appropriately prepare accounting records concerning all transactions and disposals of assets and retain those records.

6. Punishment

If an officer, employee, etc., violates this policy, JSR will strictly punish the violating officer, employee, etc., based on the employment regulations and other regulations.

Definition of terminology

- 1) Provide benefit or promise to provide benefit refers to the provision or promise to provide money or goods as well as any other tangible or intangible benefit (such as invitation to an eating or drinking establishment, provision of entertainment, coverage of travel expenses, donation, and participation in an outside organization) and includes the provision of said benefit done directly or indirectly through a third party, such as an agent.

Established: August 2020

GRI Guideline Comparison Table

The Group's Sustainability Report 2021 refers to the GRI Sustainability Reporting Standards, an international guideline. For items that are described in detail in reports other than the Sustainability Report, the name of the relevant report (e.g., Integrated Report) is given.

General Disclosures

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards General Disclosures 2016		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
1.Organizational profile				
102-1	Name of organization	JSR Corporation	—	—
102-2	Activities, brands, products, and services	JSR Group Profile	—	—
102-3	Location of headquarters	1-9-2 Higashi-Shimbashi, Minato-ku, Tokyo, Japan	—	—
102-4	Location of operations	JSR Group Profile JSR Group ESG Data(PDF)	—	—
102-5	Ownership and legal form	JSR Group Profile	—	—
102-6	Markets served	JSR Group Profile	—	—
102-7	Scale of the organization	JSR Group Profile	—	—
102-8	Information on employees and other workers	JSR Group ESG Data(PDF)	6.4 6.4.3	—
102-9	Supply chain	Supply Chain Management Human Rights	—	—
102-10	Significant changes to the organization and its supply chain	Supply Chain Management	—	—
102-11	Precautionary Principle or approach	Corporate Mission and Sustainability Philosophy Sustainability Management and Advancement Structure Corporate Governance Compliance Risk Management Responsible Care	6.2	—
102-12	External initiatives	Corporate Mission and Sustainability Philosophy Responsible Care Biodiversity Conservation Chemical Management	6.2	—
102-13	Membership of associations	Corporate Mission and Sustainability Philosophy Responsible Care Biodiversity Conservation Chemical Management	6.2	—
2.Strategy				
102-14	Statement from senior decision-maker	A Message from our Chief Sustainability Officer Corporate Mission and Sustainability Philosophy	6.2	—
102-15	Key impacts, risks, and opportunities	A Message from our Chief Sustainability Officer JSR Group's Materiality (Priority Issues) Response to the TCFD Recommendations	6.2	—
3.Ethics and integrity				
102-16	Values, principles, standards, and norms of behavior	Corporate Mission and Sustainability Philosophy Compliance Policy, Guideline, Philosophy	—	—
102-17	Mechanisms for advice and concerns about ethics	Compliance	—	—
4.Governance				
102-18	Governance structure	Corporate Governance Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	6.2	—
102-19	Delegating authority	Corporate Governance Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	—	—
102-20	Executive-level responsibility for economic, environmental, and social topics	Corporate Governance Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	—	—
102-21	Consulting stakeholders on economic, environmental, and social topics	JSR Group's Materiality (Priority Issues)	6.2	—

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards General Disclosures 2016		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
102-22	Composition of the highest governance body and its committees	Corporate Governance Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	6.2	—
102-23	Chair of the highest governance body	Corporate Governance Corporate Governance Report(PDF)	6.2	—
102-24	Nominating and selecting the highest governance body	Corporate Governance Corporate Governance Report(PDF)	6.2	—
102-25	Conflicts of interest	Corporate Governance Report(PDF) JSR Report	6.2	—
102-26	Role of highest governance body in setting purpose, values, and strategy	Corporate Governance Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	—	—
102-27	Collective knowledge of highest governance body	Corporate Governance Corporate Governance Report(PDF)	—	—
102-28	Evaluating the highest governance body's performance	Corporate Governance Report(PDF)	6.2	—
102-29	Identifying and managing economic, environmental, and social impacts	JSR Group's Materiality (Priority Issues) Corporate Governance Sustainability Management and Advancement Structure Compliance Risk Management JSR Report	6.2	—
102-30	Effectiveness of risk management processes	Corporate Governance Risk Management Responsible Care Corporate Governance Report(PDF) JSR Report	—	—
102-31	Review of economic, environmental, and social topics	Sustainability Management and Advancement Structure Corporate Governance Report(PDF)	6.2	—
102-32	Highest governance body's role in sustainability reporting	Sustainability Management and Advancement Structure	—	—
102-33	Communicating critical concerns	Sustainability Management and Advancement Structure Risk Management	6.2	—
102-34	Nature and total number of critical concerns	Risk Management	—	—
102-35	Remuneration policies	Corporate Governance Report(PDF) JSR Group ESG Data(PDF)	6.2	—
102-36	Process for determining remuneration	Corporate Governance Report(PDF) JSR Group ESG Data(PDF)	—	—
102-37	Stakeholders' involvement in remuneration	Communication with Stakeholders Corporate Governance Corporate Governance Report(PDF)	6.2	—
102-38	Annual total compensation ratio	JSR Group ESG Data(PDF)	—	—
102-39	Percentage increase in annual total compensation ratio	JSR Group ESG Data(PDF)	—	—
5.Stakeholder engagement				
102-40	List of stakeholder groups	Sustainability Management and Advancement Structure	6.2	—
102-41	Collective bargaining agreements	JSR Group ESG Data(PDF)	6.3.10 6.4 6.4.3 6.4.4 6.4.5	1,3
102-42	Identifying and selecting stakeholders	JSR Group's Materiality (Priority Issues) Corporate Mission and Sustainability Philosophy	6.2	—
102-43	Approach to stakeholder engagement	Communication with Stakeholders JSR Group's Materiality (Priority Issues) Communication with Stakeholders (Communities and Society) Communication with Stakeholders (Shareholders and Investors)	6.2 6.7 6.7.4 6.7.5 6.7.6 6.7.8 6.7.9	1~10

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards General Disclosures 2016		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
102-44	Key topics and concerns raised	JSR Group's Materiality (Priority Issues) Response to the TCFD Recommendations	6.2	—
6.Reporting practice				
102-45	Entities included in the consolidated financial statements	JSR Group Profile JSR Group ESG Data(PDF)	6.2	—
102-46	Defining report content and topic Boundaries	Editorial Policy JSR Group ESG Data(PDF)	—	—
102-47	List of material topics	JSR Group's Materiality (Priority Issues)	—	—
102-48	Restatements of information	N/A	—	—
102-49	Changes in reporting	—	—	—
102-50	Reporting period	Editorial Policy	—	—
102-51	Date of most recent report	Oct-19 Oct-21	—	—
102-52	Reporting cycle	1 year	—	—
102-53	Contact point for questions regarding the report	Post comments and opinions concerning sustainability here	—	—
102-54	Claims of reporting in accordance with the GRI Standards	—	—	—
102-55	GRI content index	—	—	—
102-56	External assurance	Evaluation by Outside Organization and Independent Review	7.5.3	—

Economic standards

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Economic standards requiring reporting		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
GRI103:Management Approach 2016				
103-1 103-2 103-3		JSR Group's Materiality (Priority Issues) Response to the TCFD Recommendations Sustainability Management and Advancement Structure	—	—
Economic Performance 2016				
201-1	Direct economic value generated and distributed	JSR Report JSR Report	6.8 6.8.3 6.8.7 6.8.9	—
201-2	Financial implications and other risks and opportunities due to climate change	Response to the TCFD Recommendations	6.5.5	—
201-3	Defined benefit plan obligations and other retirement plans	JSR Report	—	—
201-4	Financial assistance received from government	JSR Report	—	—
Market Presence 2016				
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	—	6.4.4 6.8	—
202-2	Proportion of senior management hired from the local community	Diversity, Equity and Inclusion	6.8 6.8.5 6.8.7	—
Indirect Economic Impacts 2016				
203-1	Infrastructure investments and services supported	Social Contributions	6.3.9 6.8 6.8.3 6.8.4 6.8.5 6.8.6 6.8.7 6.8.9	8,9
203-2	Significant indirect economic impacts	—	6.3.9 6.6.6 6.6.7 6.7.8 6.8 6.8.5 6.8.6 6.8.7 6.8.9	—
Procurement Practices 2016				
204-1	Proportion of spending on local suppliers	—	6.6.6 6.8 6.8.5 6.8.7	—
Anti-Corruption 2016				
205-1	Operations assessed for risks related to corruption	N/A	6.6 6.6.3	10
205-2	Communication and training about anti-corruption policies and procedures	Compliance	6.6 6.6.3	10
205-3	Confirmed incidents of corruption and actions taken	JSR Group ESG Data(PDF)	6.6 6.6.3	10
Anti-Competitive Behavior 2016				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	N/A	6.6 6.6.5 6.6.7	—
Tax 2019				
207-1	Approach to tax	Compliance	6.6	—
207-2	Tax governance, control, and risk management	Risk Management	6.6	—
207-3	Stakeholder engagement and management of concerns related to tax	—		
207-4	Country-by-country reporting	—		

Environmental standards

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Environmental standards requiring reporting		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
GRI103:Management Approach 2016				
103-1		JSR Group's Materiality (Priority Issues)	—	—
103-2		Response to the TCFD Recommendations		
103-3		Sustainability Management and Advancement Structure		
Materials 2016				
301-1	Materials used by weight or volume	Environmental Impact Reduction (Input and Output)	6.5.4	7,8
301-2	Recycled input materials used	—	6.5.4	7,8
301-3	Reclaimed products and their packaging materials	Waste Reduction	6.5.4 6.7.5	7,8
Energy 2016				
302-1	Energy consumption within the organization	Environmental Impact Reduction (Input and Output) JSR Group ESG Data(PDF) JSR Group ESG Data	6.5.4	7,8
302-2	Energy consumption outside of the organization	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.4	7,8
302-3	Energy intensity	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.4	7,8
302-4	Reduction of energy consumption	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.4 6.5.5	7,8
302-5	Reductions in energy requirements of products and services	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.4 6.5.5	7,8
Water and Effluents 2018				
303-1	Interaction with water as a shared resource	Water Resources JSR Group ESG Data(PDF)	6.5.4 6.5.6	7,8
303-2	Management of water discharge-related impacts	Water Resources JSR Group ESG Data(PDF)	6.5.3 6.5.4 6.5.6	7,8
303-3	Water withdrawal	Water Resources JSR Group ESG Data(PDF)	6.5.4 6.5.6	7,8
303-4	Water discharge	Water Resources JSR Group ESG Data(PDF)	6.5.3 6.5.4 6.5.6	7,8
303-5	Water consumption	Water Resources JSR Group ESG Data(PDF)	6.5.4 6.5.6	7,8
Biodiversity 2016				
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	N/A	6.5.6	7,8
304-2	Significant impacts of activities, products, and services on biodiversity	Biodiversity Conservation	6.5.6	7,8
304-3	Habitats protected or restored	Biodiversity Conservation	6.5.6	7,8
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	N/A	6.5.6	7,8
Emissions 2016				
305-1	Direct (Scope 1) GHG emissions	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.5	7,8
305-2	Energy indirect (Scope 2) GHG emissions	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.5	7,8
305-3	Other indirect (Scope 3) GHG emissions	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.5	7,8
305-4	GHG emissions intensity	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.5	7,8
305-5	Reduction of GHG emissions	Climate Change Mitigation JSR Group ESG Data(PDF)	6.5.5	7,8
305-6	Emissions of ozone-depleting substances (ODS)	Other Approaches	6.5.3 6.5.5	7,8
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Other Approaches JSR Group ESG Data(PDF)	6.5.3	7,8

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Environmental standards requiring reporting		Location (Title)	ISO26000 Core Subject	UN Global Compact Principle
Waste 2020				
306-1	Waste generation and significant waste-related impacts	Waste Reduction JSR Group ESG Data(PDF)	6.5.3	7,8
306-2	Management of significant waste-related impacts	Waste Reduction JSR Group ESG Data(PDF)	6.5.3	7,8
306-3	Waste generated	Waste Reduction JSR Group ESG Data(PDF)	6.5.3	7,8
306-4	Waste diverted from disposal	Waste Reduction JSR Group ESG Data(PDF)	6.5.3	7,8
306-5	Waste directed to disposal	Waste Reduction JSR Group ESG Data(PDF)	6.5.3	7,8
Environmental Compliance 2016				
307-1	Non-compliance with environmental laws and regulations	Responsible Care	4.6	7,8
Supplier Environmental Assessment 2016				
308-1	New suppliers that were screened using environmental criteria	—	6.3.5 6.6.6 7.3.1	7,8
308-2	Negative environmental impacts in the supply chain and actions taken	—	6.3.5 6.6.6 7.3.1	7,8

Social standards

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Social standards requiring reporting			ISO26000 Core Subject	UN Global Compact Principle
GRI103:Management Approach 2016				
103-1 103-2 103-3		JSR Group's Materiality (Priority Issues) Response to the TCFD Recommendations Sustainability Management and Advancement Structure	—	—
Employment 2016				
401-1	New employee hires and employee turnover	JSR Group ESG Data(PDF) Diversity	6.4 6.4.3	—
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	—	6.4 6.4.3 6.4.4	—
401-3	Parental leave	JSR Group ESG Data(PDF)	6.4 6.4.3	6
Labor/Management Relations 2016				
402-1	Minimum notice periods regarding operational changes	—	6.4 6.4.3 6.4.4 6.4.5	—
Occupational Health and Safety 2018				
403-1	Occupational health and safety management system	Occupational Health and Safety Security and Accident Prevention	6.4.6	—
403-2	Hazard identification, risk assessment, and incident investigation	Occupational Health and Safety Security and Accident Prevention	6.4.6	—
403-3	Occupational health services	Occupational Health and Safety Security and Accident Prevention	6.4.4	—
403-4	Worker participation, consultation, and communication on occupational health and safety	Occupational Health and Safety Security and Accident Prevention	6.4.7	1
403-5	Worker training on occupational health and safety	Occupational Health and Safety Security and Accident Prevention	6.4.7	—
403-6	Promotion of worker health	Labor Environment	6.4.4	—
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Chemical Management Product Safety	6.4.6	—
403-8	Workers covered by an occupational health and safety management system	The following is a list of offices with major facilities and the number of employees, but not the number of employees covered by the system. JSR Report The following is a list of the departments audited for environmental and safety audits at the head office and Group companies, headed by the president, although it does not include the number of employees covered by the systems subject to internal audits. Occupational Health and Safety Security and Accident Prevention	6.4.3 6.4.6	—
403-9	Work-related injuries	JSR Group ESG Data(PDF) Security and Accident Prevention	6.4.3 6.4.4 6.4.6	1
403-10	Work-related ill health	—	6.4.3 6.4.4	1
Training and Education 2016				
404-1	Average hours of training per year per employee	JSR Group ESG Data(PDF) Labor Environment	6.4 6.4.7	—
404-2	Programs for upgrading employee skills and transition assistance programs	Labor Environment Diversity	6.4 6.4.7 6.8.5	6
404-3	Percentage of employees receiving regular performance and career development reviews	—	6.4 6.4.7	—

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Social standards requiring reporting			ISO26000 Core Subject	UN Global Compact Principle
Diversity and Equal Opportunity 2016				
405-1	Diversity of governance bodies and employees	JSR Group ESG Data(PDF)	6.3.7 6.3.10 6.4 6.4.3	1,6
405-2	Ratio of basic salary and remuneration of women to men	—	6.3.7 6.3.10 6.4 6.4.3 6.4.4	—
Non-Discrimination 2016				
406-1	Incidents of discrimination and corrective actions taken	Compliance	6.3 6.3.6 6.3.7 6.3.10 6.4.3	—
Freedom of Association and Collective Bargaining 2016				
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Supply Chain Management Human Rights	6.3 6.3.3 6.3.4 6.3.5 6.3.8 6.3.10 6.4.3 6.4.5	—
Child Labor 2016				
408-1	Operations and suppliers at significant risk for incidents of child labor	Supply Chain Management Human Rights	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10	—
Forced or Compulsory Labor 2016				
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	Supply Chain Management Human Rights	6.3 6.3.3 6.3.4 6.3.5 6.3.7 6.3.10	—
Security Practices 2016				
410-1	Security personnel trained in human rights policies or procedures	Compliance Human Rights	6.3 6.3.5 6.4.3 6.6.6	—
Rights of Indigenous Peoples 2016				
411-1	Incidents of violations involving rights of indigenous peoples	N/A	6.3 6.3.6 6.3.7 6.3.8 6.6.7	—
Human Rights Assessments 2016				
412-1	Operations that have been subject to human rights reviews or impact assessments	—	6.3 6.3.3 6.3.4 6.3.5	—
412-2	Employee training on human rights policies or procedures	Compliance Human Rights	6.3 6.3.5	1
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	—	6.3 6.3.3 6.3.5 6.6.6	—

Explanation of locations (titles) —: No data available N/A: No applicable items

GRI Standards Social standards requiring reporting			ISO26000 Core Subject	UN Global Compact Principle
Local Communities 2016				
413-1	Operations with local community engagement, impact assessments, and development programs	Social Contributions	6.3.9 6.6.7 6.8 6.8.5 6.8.7	8
413-2	Operations with significant actual and potential negative impacts on local communities	—	6.3.9 6.5.3 6.5.6 6.8.9	7.8
Supplier Social Assessments 2016				
414-1	New suppliers that were screened using social criteria	Supply Chain Management	—	—
414-2	Negative social impacts in the supply chain and actions taken	Supply Chain Management	—	—
Public Policy 2016				
415-1	Political contributions	JSR Group ESG Data(PDF)	—	—
Customer Health and Safety 2016				
416-1	Assessment of the health and safety impacts of product and service categories	Chemical Management Product Safety	6.3.9 6.6.6 6.7 6.7.4 6.7.5	9
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	Responsible Care	6.3.9 6.6.6 6.7 6.7.4 6.7.5	—
Marketing and Labeling 2016				
417-1	Requirements for product and service information and labeling	Chemical Management	6.7 6.7.3 6.7.4 6.7.5 6.7.6 6.7.9	—
417-2	Incidents of non-compliance concerning product and service information and labeling	Chemical Management	6.7 6.7.3 6.7.4 6.7.5 6.7.6 6.7.9	—
417-3	Incidents of non-compliance concerning marketing communications	N/A	6.7 6.7.3 6.7.6 6.7.9	—
Customer Privacy 2016				
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	N/A	6.7 6.7.7	—
Socioeconomic Compliance 2016				
419-1	Non-compliance with laws and regulations in the social and economic area	JSR Group ESG Data(PDF)	6.6 6.6.3 6.6.7 6.6.7	—