

JSR Group  
**CSR Report**  
**2017**  
Highlight



With chemistry,  
we can.

# MATERIALS INNOVATION

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JSR Corporation

# Materials Innovation

Today's world presents us with innumerable challenges. They include

- Global environmental issues, such as climate change, conservation of resources and biodiversity;
- Health-related issues, such as safe water, food and health care; and
- New issues relating to digital revolution-initiated changes in the social structure brought by advancements in AI and IoT;
- Issues related to the development of a society where all people are respected and have hope for the future

Various materials are utilized to effectively manage these issues and challenges as well as to form the basis of products and mechanisms designed to improve the world.

By pursuing new possibilities for materials through the potential of chemistry, and contributing to the development of society and a sustainable global environment, JSR Group would like to ensure its own sustainable growth.

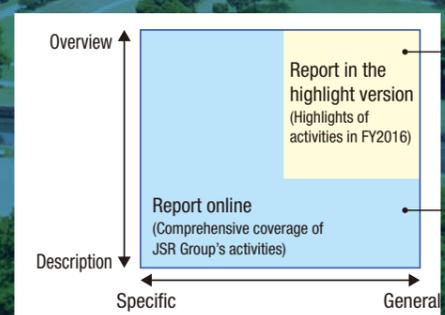
“Materials Innovation - We create value through materials to enrich society, people and the environment.”

It is our corporate mission to pursue such possibilities through the integration of business activities and CSR initiatives.



**The CSR Report 2017: Formats**  
 JSR Group's CSR Report 2017 is available both in online and highlight versions. The online version presents a comprehensive report on JSR Group's CSR activities. [http://www.jsr.co.jp/jsr\\_e/csr/](http://www.jsr.co.jp/jsr_e/csr/)  
 The highlight version features highlights of JSR Group's CSR activities in FY2016.

Other corporate information (products, services, financial information, etc.) can be found on the JSR website: [http://www.jsr.co.jp/jsr\\_e/](http://www.jsr.co.jp/jsr_e/)



[http://www.jsr.co.jp/jsr\\_e/csr/](http://www.jsr.co.jp/jsr_e/csr/)

## Editorial Policy

Under the Corporate Mission of creating value through materials innovation for the enrichment of society, people and the environment, JSR Group aims to build and maintain good relations with all of our stakeholders and become an indispensable corporate citizen. We intend to resolve social issues by integrating management and CSR as well as demonstrating our corporate mission with actual results.

In FY2016, we promoted initiatives focused on priority CSR issues that we had identified while increasing transparency and acceptability. At the start of FY2017, which is the initial fiscal year of our mid-term business plan “JSR2019,” we arranged our approach to these identified issues into three priority issues devised from the viewpoint of relevance to society. They are “Social Issues that JSR Group Can Help Resolve,” “Social Issues Attributable to JSR Group's Corporate Activity,” and “Basic Issues in JSR Group's Corporate Activity.”

In this report, we aim to communicate our CSR activities in FY2016 to all stakeholders in an easily comprehensible way that follows the priority issues. Additionally, we have reworked our traditional “Top Message” into a dialogue between JSR's President and an expert to convey our approach to sustainable medium- and long-term growth for JSR Group.

The online version gives a detailed report with data that primarily focuses on our initiatives targeting the three priority issues, with the aim being to give readers an overall picture of our CSR initiatives. As for the printed version, this fiscal year we are renaming this version the “highlight version.” The highlight version provides highlights of our activities in FY2016.

## Third-Party Opinion and Independent Review

- Third-Party Opinion by Toshihiko Goto, Chief Executive Officer, Sustainability Forum Japan (specified non-profit organization)
- Independent review by the Responsible Care Verification Center (The Independent Review Report is available online)

## Referenced Guidelines

- ISO 26000 Reference
- *Environmental Accounting Guidelines for Chemical Companies*, Japan Chemical Industry Association (JCIA) (reference)
- *Environmental Accounting Guidelines 2005 / Environmental Reporting Guidelines 2012*, Ministry of the Environment (reference)

## Target Period and Fiscal Year

April 1, 2016 - March 31, 2017

(Some parts of CSR Report 2017 include activities and initiatives conducted since April 2017.)

\* Fiscal Year means the year starting April 1st

For example, FY2016 means April 1, 2016 - March 31, 2017

## Operations Covered

JSR Corporation and 50 Group Companies (total of 51 Companies)

- Operations for which data was collected on “Responsible Care” (environment, safety and health)
- Head Office, Yokkaichi Plant, Chiba Plant, Kashima Plant, Performance Polymer Research Lab., Display Materials Research Lab., Fine Electronic Materials Research Lab., Advanced Materials Research Lab., and Tsukuba Research Lab.
- 14 domestic Group companies and 10 overseas Group companies\*

\* See companies listed with the asterisk (\*) in the JSR Group Company list on page 21-22.

## Publication Information

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## Responsible Care®

(“Responsible Care” is referred to as “RC” in this report.)

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.”

Source: Japan Chemical Industry Association pamphlet

“Do You Know about Responsible Care?”

Information on RC is available online





Dialogue  
between JSR's  
Top and a CSR  
Expert

## JSR's CSR Management Aspirations as it Approaches its 60th Anniversary

JSR celebrates the 60th anniversary of its company's founding in December 2017. The year 2017 also marks the start of the JSR Group's new mid-term business plan, "JSR20i9." It is also a time when the Group's CSR is beginning a review of priority issues among moves to new activities. This review will examine the steps JSR must take to be a sustainable company and contribute to society's sustainability over the next 10, 30, and even 60 years..

In this connection, we recently welcomed Mr. Peter D. Pedersen, president of Leadership Academy TACL, co-founder of NELIS, and advocate of the "Resilient Company"\* concept, for a dialogue with JSR's Representative Director and President, Mr. Mitsunobu Koshiba.

(At JSR Headquarters on April 18, 2017)

\*"Resilient Company" refers to a company possessing strong stress tolerance and resilience when faced with crisis. It is a company that responds flexibly to changes in the business environment, identifies growth opportunities amid such changes, and contributes to society.

### A Look Back at the Mid-Term Business Plan "JSR20i6" (FY2014-FY2016)

#### A Transformation of Business Structure

**Pedersen:** First of all, I'd like you to ask you to look back on your activities under the three-year mid-term business plan that began in fiscal 2014.

**Koshiba:** These three years, and the three years before that, making a total of six years, were a time of investment to create new growth opportunities. I was named president following the financial crisis sparked by Lehman Brothers' bankruptcy in 2009, Looking at what could happen in the time to come, and at what JSR should do to achieve growth, we set our sights on four sectors; the

existing Petrochemical Business and Fine Chemicals Business and, as new undertakings, the Life Sciences Business and Lithium Ion Capacitor Business. Then, under our mid-term business plan "JSR20i6," we expanded the scale of our Life Sciences Business to 30 billion yen through two major M&As. That business is now undoubtedly on track to grow to 50 billion yen by fiscal 2020. We also rearranged our unprofitable businesses, and thus I think we have largely succeeded in getting on track as a new organization. Our existing Petrochemical Business and Fine Chemicals Business were forced into a slump due to a collapse in the global supply-and-demand balance. However, they hit bottom in 2014 and 2015 and started a rebound toward the end of fiscal 2016, so we are optimistic about their prospects. Generally speaking, although it took until 2014 to recover from the post-Lehman slump, I am confident that we succeeded in transforming our business structure.

### Looking at Things in Terms of Communication with Communities and Society

**Pedersen:** My opinion is that, precisely because we cannot predict the future, companies must build a "resilient" organization that allows them to be ready to forcefully meet whatever the future brings. To do that, a company must have three elements that I call the "Triple A": These are "Anchoring" (a corporate mission that serves as its anchor), "Adaptiveness" (ability to change oneself) and "Alignment" that is more than just CSR (aligning strategy with megatrends and new stakeholder expectations). These elements are particularly important when business is sluggish. From this standpoint what challenges has the JSR Group faced since 2000?

**Koshiba:** When we studied a long-term vision for the next twenty years (=2030) for a year and a half beginning in 2009, we extracted four themes as macro trends; these were global warming; emerging markets; population, water and food problems; and the digital revolution. First, in the area of "Alignment," we focused on "SSBR" (solution polymerization styrene-butadiene rubber for fuel-efficient tires) as a means of helping combat global warming. This raw material for tires reduces rolling resistance and thus improves fuel efficiency. It is enjoying rapidly growing demand in Japan, Europe, and the United States. I think it is a truly sustainable product. As for "Adaptiveness," I think in the past there were areas where we had problems keeping up in an increasingly rapidly-changing world. But I think we would have responded more successfully to the change if we had realized this around the mid-2000s, before changes started coming even faster.

**Pedersen:** Well, it might be harder to notice when things are going well. What about "Anchoring"? If you lose sight of your original mission and objectives, you may end up becoming a company that simply makes "things."

**Koshiba:** In 2011 we reexamined our corporate mission and decided to reword it as "Materials Innovation: We create value through materials to enrich society, people and the environment." Looking at the results of questionnaire surveys and other tools, I think the new corporate mission has penetrated throughout the company quite well. However, I think we still have work to do in terms of putting the mission into actual practice.

### The Challenge is "Adaptiveness"

**Pedersen:** So your "Anchoring" is good, but you still face challenges in terms of practical application and "Adaptiveness." Put simply, you are at a point where your adaptiveness is being tested, aren't you.

**Koshiba:** Looking at surveys on employee awareness and corporate ethics awareness, we see that levels of satisfaction and happiness are generally high. However, some results indicate that more needs to be done in terms of company performance. It seems some employees think that although their own department is doing well, other departments have problems. Basically, I believe that labor productivity should go up when employees are healthy and happy, but my definition of satisfaction perhaps differs from theirs.

**Pedersen:** It may be that competition that skillfully raises awareness among departments is an important part of promoting "Adaptiveness." Additionally,

employees must strengthen their engagement through personal transformation. For that to happen, it is important that employees realize they can participate more in the process of value creation.

**Koshiba:** We may indeed have a problem in terms of "Adaptiveness." On one hand, JSR's employees are perceptive, earnest, and highly motivated to achieve goals. But on the other, I think they may be timid when it comes to taking on the challenges. Our "Course of Action" is comprised of what we call the "4Cs." Specifically, these are Challenge, Communication, Collaboration, and Cultivation. After conducting personnel performance evaluation that emphasizes "Challenge" of the 4Cs, we found that, in fact, employees tend to set goals that are short-term and appear reachable. Consequently, the organization shies away from challenges, which is contrary to our goal here. So sometimes I dare to say, "Don't be afraid to 'waste' time trying new things!" (Laugh)

### Key Points of the New Mid-Term Business Plan "JSR20i9" and JSR's Future Orientation

#### Growth Scenarios

**Pedersen:** How are you planning to move forward with the new mid-term business plan, which will extend up to fiscal 2019?

**Koshiba:** Although our Fine Chemicals Business has successfully increased its share overall, with the exception of some semiconductor materials and LCD materials, it has had difficulty achieving greater share and appears to have reached its limit. So we think our future business growth will be in line with market growth but not more than that. Likewise, our existing Petrochemical Business will grow at about the same rate as GDP growth. We are looking at three points as promising areas for profits in the future. The first is SSBR, which is a very competitive product. We are currently constructing a new plant in Hungary to go with our plants in Yokkaichi and Thailand. The second is semiconductor materials in our Fine Chemicals Business. We want to expand our share of semiconductor materials in the "data society," which will continue to grow and develop. And finally there is

to next page



our Life Sciences Business. These three growth drivers will steadily produce higher profits. Additionally, we must enhance our global competitiveness. As part of this, I think we need to restructure our work formats to improve labor productivity—in other words, we must execute initiatives toward introducing heretofore nonexistent work modes in order to improve labor productivity.

### Incorporating a “Digital Mindset” into the Company Organization

**Pedersen:** I think conventional “functional problem-solving” in the form of the “P” (plan), “D” (do), “C” (check), and “A” (action) must change to “creative problem-solving” in the form of the “DIE-I cycle,” which is comprised of “De-framing” (stepping away from the usual point of view), “Insight” (gaining new awareness and insight), “Experiment & Learn” (gaining knowledge from experimentation), and “Implementation” (putting into action).

**Koshiba:** I think that, with the “DIE-I Cycle,” you’re talking about responding to the digital revolution. Although we can consider that there are businesses out there that have incorporated AI and IoT into various aspects of their operations, I think it is first important to incorporate a “digital mindset” into the organizational culture.

For example, it is possible to accelerate the speed of R&D by ten or even one-hundred times by using AI. As we can see with Google’s AlphaGo, which suddenly gained fame by defeating the top Go players, the development of AI entails great cost. However, in the semiconductor industry, such costs may fall in line with “Moore’s law” and, perhaps in five years or so, we may be able to obtain AI technologies that are out of reach now. So, if we look at the “work-style reforms” that are coming, although I believe that such schemes as “no overtime days” and “Premium Fridays” are also important, we cannot view those reforms in this dimension alone. Indeed, I believe we must reexamine conventional practices and consider productivity in a completely new light through “De-framing.”

I think the target before us is to improve productivity in the 21st-century-style white-collar market.

**Pedersen:** I completely agree.

### Action toward Sustainable Growth

#### Need to Consider Measures that Look 20 and 30 Years Ahead

**Pedersen:** JSR will celebrate its 60th anniversary in December of 2017. What sort of vision or measures come to mind when you look ahead to the next sixty years?

**Koshiba:** I believe that, for the corporate body known as the JSR Group to survive and grow over the next twenty or thirty years, we must come to grips with the work-style reforms that I just mentioned and the digital revolution. But there is one more thing. We must also reexamine our manufacturing facilities and IT infrastructure. We will decide on the course we will take here during the three years of our new mid-term business plan. We made the new plan effective until 2019 rather than 2020 because we wanted to send a message that “2020 will mark the start of the next generation.” I want the young generation to take the lead in setting our direction for the twenty years, and thirty years, that come after that.

**Pedersen:** So it will be the coming young generation that will take charge of so-called creative problem-solving. How do you intend to instill the digital mindset, for example, that will be needed for this?

**Koshiba:** We have many employees who are not “digital natives.” But I think we can raise their affinity with data by, for example, replacing our old-style core information systems to make better use of data in our operational systems and introducing digital medicine into our employees’ health management. I also think that learning not just language but program language will be effective.

Digital natives will grow in an astonishing variety of ways if we give them such opportunities. In fact, we have just started selective education with this aim.

**Pedersen:** So it’s important to have mechanisms that allow those who are motivated to reach high.

**Koshiba:** The Japan Synthetic Rubber Company (JSR’s former name) of days past was a domestic company. Nowadays the culture is one that if even one foreigner participates in a meeting of mostly young employees, the conversation naturally switches to English. In the same way, I believe digital technologies will naturally become part of the company.

#### An Organization that Maintains a “Sound Mind”

**Pedersen:** I previously mentioned how it is necessary to build organizations that are “future-proof” against an unpredictable future—in other words, to build organizations that are pliant, strong, and resilient. I think a company climate into which digital technologies and English are incorporated is exactly in line with this. On top of this, alignment with society in the sense of bringing society and vectors together is essential. What I mean is that there is a need to align the vectors of a company’s strategy in “realization of a sustainable society,” something demanded by the times and by stakeholders.

**Koshiba:** We reorganized our previous Audit Department into a “Corporate Audit Department.” This new department does more than just conduct checks to prevent irregularities, such as environmental destruction or accidents and falsification of quality data. It also aims to add the perspective of “sustainability innovation” for the delivery of better products based on the fundamental premise that such irregularities will not occur. In other words, it seeks to enhance psychological and cultural aspects while keeping a “sound mind” for organizational survival.

**Pedersen:** I think the “excellent company” of the past pursued so-called “performance excellence.” But I think a keyword for today is so-called “double excellence”—double in the sense that pursuit of “social excellence” is added. The addition is significant. This is because I think it demonstrates to stakeholders that JSR is not simply about traditional QCD performance but also a company that firmly addresses social issues.

**Koshiba:** We have consistently remained faithful to the idea of “Innovation One on One” with the customer as part of our Materials Innovation orientation. In other words, we strive to build a system in which innovation is born through a special one-on-one relationship with the customer. One meaning here is that, rather than purchasing completed products, customers are purchasing a relationship with JSR.

**Pedersen:** That’s the strength of a relationship built on the sharing of “Anchoring” not only within the company but with outside interests and customers, isn’t it.

**Koshiba:** However, “Innovation One on One” has a weakness in that the fields in which it can be applied are limited. We have stuck to “Innovation One on One” as a pattern for success. However, in the digital revolution, when change takes place rapidly, we will not succeed with it alone. Therefore, I think the question becomes how do we generate completely new business models. Answering it will be a tremendous challenge for us.



### Being a Company that is Consistently Trusted

**Pedersen:** I like to say that, from now on, ROI will not mean “return on investment” but rather “return on integrity.” If CSR is something fatiguing and painful in which there is a trade-off between business activity and society, then we must eliminate that situation and create a “trade-on” relationship. I think doing so will bring higher brand value and higher return.

**Koshiba:** SSBR, which is a JSR product, is helping combat global warming. For example, tires can help resolve issues concerning electric vehicles (EV), which are said to have short travel range. And there are our semiconductor materials, which are energy-saving products. The amount of electric power consumed by equipment used in AI is tremendous. And it is said that data centers account for 2% of the world’s electric power consumption. Business opportunities can be found in efforts to solve these social problems. I think “materials” are what will be needed in industrial innovation oriented toward resolving such major issues.

Because there is an element of social “alignment” in a company’s existence, it is important that companies continue building even greater trust from their employees, clients, and customers and ensuring that such trust is unshakeable. I think that if we look squarely at the JSR Group place in society, our corporate social responsibilities will come into focus naturally.

### Participation in the United Nations Global Compact

JSR Group became a participant in the United Nations Global Compact in April 2009. As such, we will more proactively fulfill our corporate social responsibilities with recognition that businesses operating on a global level must make a greater commitment to human rights, labor, the environment and anti-corruption, as expressed in The Ten Principles of the United Nations Global Compact. We will also advance initiatives oriented toward achieving the “Sustainable Development Goals” (SDGs) that were adopted by the United Nations in 2015 through our business activities.



*Mitsunobu Koshiba*  
**Mitsunobu Koshiba**  
 Representative Director and President  
 JSR Corporation

#### 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)

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.

# Thinking about Work Styles and the Development of the Human Resources that will Lead JSR Group in the Next Generation



JSR Group has commenced a new mid-term business plan called “JSR20i9” that began in FY2017 and extends to FY2019. “Work-style reform” is positioned as a pillar of the plan’s advancement.

We see “work-style reform” in terms of two issues: “Work-style reform is not just about dealing with overtime work. What is important is how to improve labor productivity by adding technology,” and “With the company’s organization lacking the desire to take on new challenges, more opportunities must be created for employees to encounter new technologies.”

We recently invited experts on “work-style reform” to JSR to discuss two topics concerning JSR Group’s approach in this area: “Work styles and human resources development of the future, with general focus on the years 2025 and 2030,” and “Work style-related challenges confronting JSR Group.”

## Participants



**Tsuneo Sasaki**  
(President and CEO, Sasaki Tsuneo Management Research, Inc.)  
Mr. Sasaki graduated from the University of Tokyo’s Faculty of Economics in 1969 and joined Toray the same year. He achieved his current position after becoming a director at Toray and being named president of Toray Corporate Business Research, Inc. in 2003. He has engaged in various public service-related activities, among them serving as a member of the Cabinet Office’s Council for Gender Equality and as a visiting professor at Osaka University.



**Akie Nakamura**  
(Manager, Centre for Labour Policy, Recruit Works Institute)  
Ms. Nakamura joined Recruit in 1999 after earning her master’s degree from the University of Tokyo’s Graduate School of Mathematical Sciences. She achieved her current position in 2016. She proposes new work models and devises policy recommendations based on predictions and studies of the labor market.



**Nobuo Kawahashi**  
Director and Executive Managing Officer  
(Research & Development)



**Yasufumi Fujii**  
Officer  
(Human Resources, Diversity Development)



**Makoto Doi**  
Senior Officer  
(Legal and General Affairs, CSR)



**Kazumi Nejigaki**  
Fellow  
General Manager of CSR Department

(Positions are as of the time the dialogue was held in May 2017.)

**Main views of the experts and important thinking of JSR Group (excerpt)**  
(The entire dialogue is provided in the CSR Report 2017 Online Version: [http://www.jsr.co.jp/jsr\\_e/csr/](http://www.jsr.co.jp/jsr_e/csr/).)

## Work styles in the years 2025 and 2030

**Nakamura:** Three factors will impact the future of work styles. The first is change in the industrial structure. The second is a change in demographics caused by the falling birthrate and aging population. And the third is technological advancement. This refers to the steady permeation of AI, robotics, and the “on-demand economy” into workplaces and daily life.

**Kawahashi:** In R&D, we seek “quality” and “quantity” in boosting the competitiveness of product development. We must change work styles so that certain aspects of “quantity” (which involves movement of hands and feet) are replaced by robotics and certain aspects of “quality” (which involves use of brain power) are replaced by AI, leaving human beings with the task of creating ideas that spark innovation.

**Fujii:** In her book titled Work Shift, Lynda Gratton writes that, in the future, only single-field professionals will be required, and generalists will become unnecessary. JSR stresses generalist ability and handles its personnel on a rotational basis. Because we live in an age of rapid change, I think even single-field professionals, like those we see in Europe and the United States, will lose their jobs. It will actually be the vaguely-defined generalists who will be able to survive.

**Nakamura:** We advocate that, from now on, generalists should become “producers” and specialists should become “technologists.” A technologist is one who produces new technologies on his or her own, without limiting his or her work to a specific field. A producer is one who gathers various technologists together to create corporate competitiveness in terms of revenue, new products, business models, and the like.

**Kawahashi:** I agree with the argument that producers and technologists are necessary. I call such producers “designers.” It is important to have “design skills” for applying society’s needs to materials, products, and business, and for developing and appropriately assigning the human resources necessary for those tasks.

**Nakamura:** Something that producers and technologists have in common is that they “know that there are things they don’t know.” There is a need to produce added value as a team using a method like open innovation, whereby technologists constantly update more advanced and cutting-edge expertise and producers entrust a deep sense of expertise to the respective technologists.

**Doi:** What is important is how to cultivate producers and technologists at JSR Group. But before that, we must establish a clear picture of the producers and technologists needed by JSR Group.

## Work style-related challenges confronting JSR Group

**Sasaki:** The old ways return whenever a workplace manager moves on to a new position. Attempting to improve productivity and execute work-style reform in such an environment is impossible. When changing an organization, the first concern is the kind of message workplace managers send. It is important to consider what should be done with everyone in the workplace, to compile the results into a manual, and to always stick to this process.

**Fujii:** As a manufacturer, what we must stress above all else is safety

measures. No matter how much the world changes, safety measures must always be taken seriously.

**Nejigaki:** Three years ago, we had an accident. We identified the cause and developed countermeasures. However, in essence, what we found was that our corporate culture was part of the problem. We proposed that, rather than doing this or that as a company, we “want workplace managers to think of their workplaces as their home, and to protect their employees by thinking of them as their family members.”

**Sasaki:** We should emphasize culture over system, and workplace manager over culture. Even if we come up with great system, it will be meaningless if no one uses it. The whole will not change unless the workplace manager sends a message and changes each individual. Things will improve if we discuss the problems thoroughly, not if don’t discuss them because we are busy or do nothing even if we are aware of the problems. This refers to making it a habit to discuss things as a group, to shorten meeting times, and to take notes on important matters and reread them, and then becoming autonomous people. Employees should consider what their own mission is, not about what their company or workplace should do. They need to think about how they will work independently and “how they will live.”

**Nakamura:** Instead of waiting for someone else to reform, the best way is to find work styles in which each employee contributes to the company and society. It’s important to stop for a moment, think for yourself, and then try taking action.

**Sasaki:** One’s way of working is really one’s way of living. There are many important things in life. Work is important. But family is also important. Hobbies and friends are similarly important. If you are caught up with just your work, you will forget those other important aspects.

**Fujii:** JSR Group states that the personnel it wants are “professionals possessing global-level competitiveness in their respective fields.” Becoming such a person requires encountering global-level human resources and enhancing one’s education outside the company.

**Nakamura:** I get the sense that many researchers and engineers are born blessed with intellectual curiosity and an inquisitive mind and are also good at cooking and child-rearing. They also desire to stay on the front lines in their career. So if reform has trouble gaining traction even amid such circumstances, what factors are inhibiting it? Is it an absence of contact with other cultures or lack of involvement in the community?

**Fujii:** I was once told that “JSR Group is extremely well motivated to tackle matters at hand and achieve its goals.” The point was that we are a task-oriented company. But there is no play in this. Whenever we have extra time, rather than thinking “Let’s go to an academic conference,” we end up thinking “Let’s make as many samples as we can.”

**Kawahashi:** If employees cannot instigate change on their own, it may be necessary to try changing them from above, perhaps even forcibly. We also need a culture that allows us to go back to the drawing board and come up with something new when an approach fails.

**Doi:** The system is in place. Now it’s time to change the culture.

**Sasaki:** What I want to say is this: “Value yourself.” If you genuinely consider yourself to be valuable, then the best work style for you should become clear to you. In all cases, I think you should consider your actions in terms of what will make you happy.

Integration of management and CSR creates benefits for both society and JSR Group through its contribution to the development of a sustainable global environment and society.

Under the corporate mission of “Materials Innovation - We create value through materials to enrich society, people and the environment,” JSR Group aims to build and maintain good relations with all of our stakeholders and become an indispensable corporate citizen. We intend to resolve social issues by integrating management and CSR as well as demonstrating our corporate mission with actual results.

## JSR Group’s Corporate Mission and Priority Issues

### Corporate Mission

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

**Management Policies:**

**Fundamental Pillars of Management**

- Continuous Creation of Businesses
- Enhancement of Corporate Culture
- Increase in Corporate Value

**Management Policies:**

**Responsibility to Our Stakeholders**

- Responsibility to Our Customers/Business Partners
- Responsibility to Our Employees
- Responsibility to Society
- Responsibility to Shareholders

**Course of Action: The 4Cs**

- CHALLENGE
- COMMUNICATION
- COLLABORATION
- CULTIVATION

### Issues facing society that need to be addressed



- Business Development for Higher Profitability
- Reinforcement of Global Competitiveness
- Nurturing of Next-Generation Businesses

# Innovation

### Basic Issues in JSR Group’s Corporate Activity

- Corporate Governance
- Compliance
- Risk Management
- Responsible Care

### Social Issues that JSR Group Can Help Resolve

- Health and Longevity
- Better Access to Healthcare and Medical Care
- Quality of Life and Happiness
- Eco-Friendly Products

# Sustainability

### Social Issues Attributable to JSR Group’s Corporate Activity

- Health and Safety Initiatives
- Climate Change Mitigation
- Environmental Impact Reduction
- Waste Reduction
- Water Resources Conservation
- Labor Environment
- Diversity
- Human Rights
- Supply Chain Management
- Communication with Communities and Society
- Communication with Shareholders and Investors

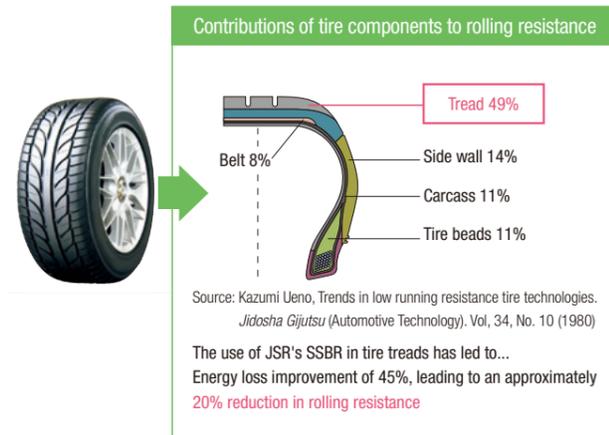
Development of a Sustainable Global Environment and Society

To ensure that the corporate body known as JSR Group continues to survive and grow over the next 20 or 30 years, we intend to resolve priority issues by integrating our business with CSR with focus on three axes: “Social Issues that JSR Group Can Help Resolve,” “Social Issues Attributable to JSR Group’s Corporate Activity,” and “Basic Issues in JSR Group’s Corporate Activity.” Particularly when it comes to “Social Issues that JSR Group Can Help Resolve,” we must move quickly and boldly in response to changes in society’s needs. Quite simply, we will need to be a company with innovative strength and sustainability. JSR Group’s new mid-term business plan, JSR20i9, commenced in April of 2017. JSR20i9 lays out growth scenarios for each of our businesses: the Petrochemical Products Business, the Fine Chemicals Business, and the Life Sciences Business. We will help resolve social issues through business activities oriented with these three business growth scenarios.

**SSBR: A synthetic rubber for low fuel-efficient tires with great potential in the effort to solve global environmental problems (Petrochemical Products Business)**

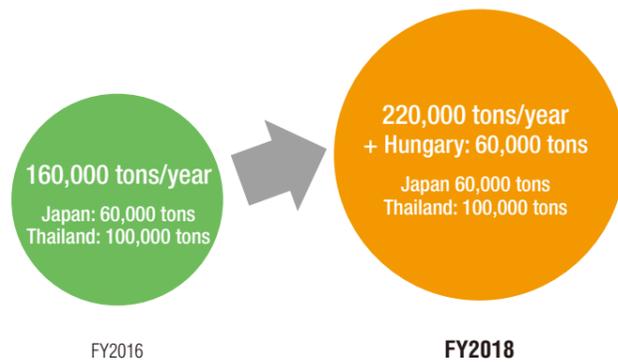
Fuel-efficient tires are environmentally-friendly products and yet maintain their ability to stop safely and securely. JSR Group’s solution polymerization SBR (SSBR) has received positive feedback from customers. JSR Group designed SSBR using technology that more readily facilitates rubber molecules and tire reinforcing material molecules to bond tightly, which reduces internal friction and rolling resistance.\* In addition, this is achieved without changing the characteristics of rubber that enable tires to stop. SSBR allows large reductions in environmental impact through the entire lifecycle of the tire, from the material selection and its usage to disposal. Automobiles will still require tires even after automotive engines are replaced with electric motors. Thus, demand for SSBR is high both in countries and regions where environmental standards are high, such as Japan and Europe, and in emerging nations where reducing environmental impact is an urgent issue. SSBR is currently manufactured in two countries: At the Yokkaichi

Plant in Japan and JSR BST Elastomer in Thailand. Additionally, production is scheduled to start at JSR MOL Synthetic Rubber in Hungary in 2018. We will continue helping to solve global environmental issues by meeting the global demand for fuel-efficient tires.



\* Rolling resistance: Resistance in the direction opposite to the direction of tire rotation. Caused by tire deformation, ground contact friction, and air resistance.

**SSBR production capacity**



SSBR plant of JSR BST Elastomer, Thailand

**To Contribute to the Evolving Digitalization-Based Society (Fine Chemicals Business)**

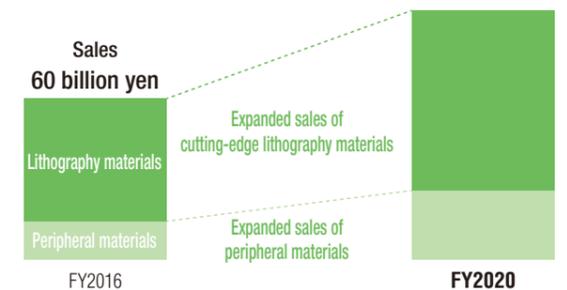
**Society and the Coming Digital Revolution**

Today, when life without computers and the internet is no longer imaginable, truly great changes are occurring. Right now, computers can only run on programs, but they are gradually gaining the ability to learn on their own (in a phenomenon called “cognitive computing”). The things that we use directly—the personal computers (PCs), tablet computers, and smartphones equipped with semiconductors, displays, cameras and the like—are in reality “terminal devices” that link the virtual world (a vast aggregation of various data) with people and things. Cloud computing (the “Cloud”) stores and shares data through these terminal devices and the internet. Within the world of the Cloud is a growing virtual space composed of artificial intelligence (AI) and other technologies that learn from enormous amounts of collected data and become dramatically smarter. In the future, it will not be only “people” who are linked to this virtual space through their smartphones. Many “things,” such as cars and manufacturing equipment, will also be linked to it through various sensors as “edge devices” (creating a phenomenon known as the “Internet of Things”: IoT). And as a result, an unfathomably vast amount of data (“Big Data”) will be aggregated there. AI will continue to get smarter, and eventually the day will probably come when we “people” use advanced AI routinely without even thinking about it. Already digital services that were unknown in the past—such as the streaming delivery of music and images and sharing of cars and houses—have begun to permeate throughout our daily lives. Their arrival gives us taste of the coming cognitive computing age.

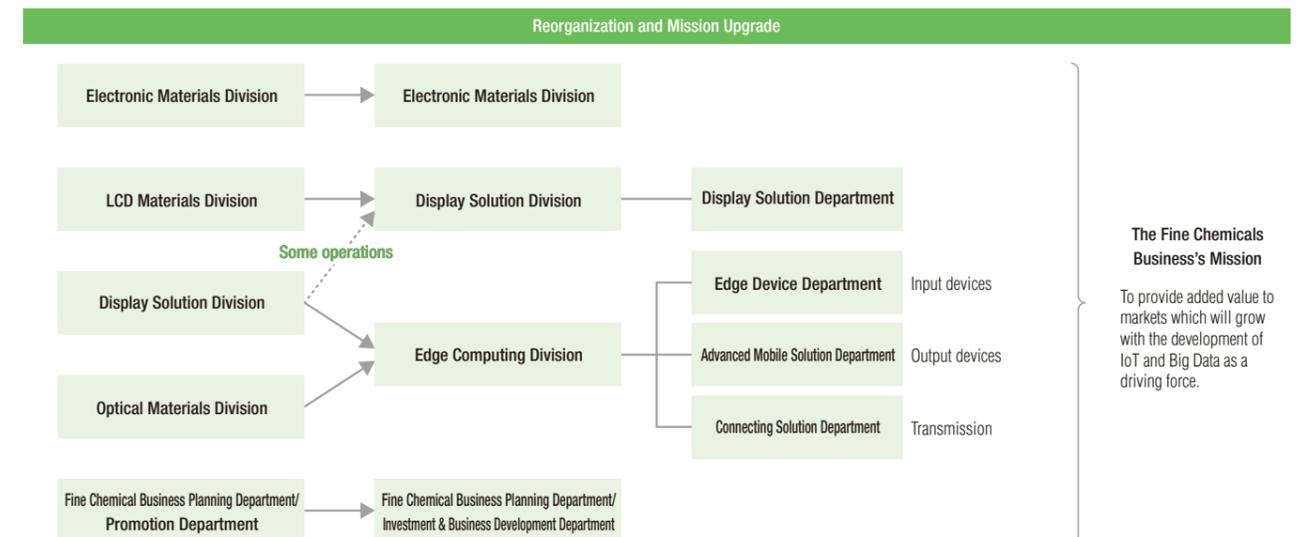
**Reorganization of the Fine Chemicals Business and Mission Upgrade**

It goes without saying that JSR’s Fine Chemicals Business must reinvent itself in immediate response to such social changes. In the semiconductors sector, basic needs will not change in the sense that data processing volume will increase dramatically. However, we must prepare for shifts toward new processes that will process data with high efficiency. And in the display sector, we must prepare for a shift away from displays to “see” data to displays to “input and output” data. Amid such circumstances, there are concerns that we will be unable to respond to major changes in perception vis-à-vis such items if we maintain an organizational framework that is premised on the conventional industrial structure. For this reason, we changed the organizational format and names of JSR’s Fine Chemicals Business in April 2017 (Figure 1). The Fine Chemicals Business of the cognitive computing age will need more than a materials-based approach whereby it simply supplies functional chemical products—specifically, differentiated high-value products. It will also require an approach that involves providing solutions that are matched to customers’ needs. To reflect this, we reworked the business’s organizational names to bring them in line with the experiences and values of final customers. With its new organization, JSR’s Fine Chemicals Business will quickly respond to social change and provide added value to social markets which will grow with the development of IoT and Big Data as a driving force.

**Expanded sales of lithography materials and peripheral materials**



(Figure 1)



**Opening of JSR-Keio University Medical and Chemical Innovation Center (JKiC), a joint-research facility with Keio University, in October of 2017 (Life Sciences Business)**

While being an active participant in medical fields where diagnoses and treatment are provided and in the manufacture of pharmaceuticals, JSR Group will develop products in the life sciences sector by paying close attention to the technologies and services that society truly needs. To do this, we will build partnerships with institutions and companies possessing knowledge, technologies, and familiarity with approvals and licenses in the medical care field that we traditionally have not had. By taking this approach, we tie JSR Group's strengths in materials to final product quality and precisely meet the expectations of end users including physicians, pharmaceuticals companies and researchers. At the same time, we are setting up systems that will respond quickly to changing needs in medical fields by building strong partnerships with the medical institutions that use final products.

As part of this, JSR Group will open JSR-Keio University Medical and Chemical Innovation Center (JKiC), a joint-research facility with Keio University, in October 2017.

Located on Keio University's Shinanomachi Campus, which is home to the university's School of Medicine and hospital, JKiC has three floors above ground, one basement level, and a total floor area of 3,600 m<sup>2</sup>. The first floor will have a space for social interaction, an exhibit space, meeting rooms, and an office to support industry-academia-medicine collaboration. The second

and third floors will have "free address" rooms and open laboratories where JSR and Keio researchers can work side by side. Plans call for cutting-edge evaluation devices and other equipment to be installed in the basement level. We will develop new materials and products for health and longevity and other objectives at JKiC through joint research with Keio University. Through our research there, we will aim to contribute to society and education by promoting global innovation in medicine. Specifically, we plan to promote joint research by establishing the following four areas as strategic fields.

**1. Precision Medicine**

- We will research and develop new diagnostic reagents that will be needed when providing care and administrating drugs tailored to individual patients.

**2. Microbiome**

- We will strive to clarify the roles that microorganisms present in the intestines, skin, and other parts of the body play in health maintenance and the onset of disease, and establish technologies for disease prevention and treatment.

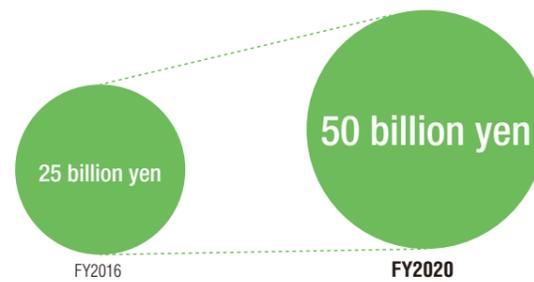
**3. Stem Cell Biology and Cell Based Medicine**

- We will aim to develop methods for efficiently culturing iPS cells and other "stem cells" and technologies for controlling their differentiation into tissues and organs. We will also strive to build systems for exploring new drugs and for performance and safety evaluation without using laboratory animals.

**4. Designed Medical Devices**

- We will develop three-dimensional cell culture substrata, 3D-printing software, and 3D-printed medical devices based on JSR's 3D-printing technologies.

**Projected sales by the Life Sciences Business**



**Our customers and business partners, employees, society, shareholders, and other stakeholders will be affected in various ways as our scope of business grows. We will deepen mutual understanding with each of stakeholders and meet their expectations.**

**Health and Safety Initiatives**

**Basic Philosophy**

JSR Group believes that "safety is of utmost importance to everyone working in manufacturing and the bedrock of business activity." To encourage understanding and acceptance of this belief by each employee and foster company-wide recognition of the value of "safety first," we established the following "Basic Philosophy for Occupational Health and Safety" and accompanying "Courses of Action" for executing it in July of 2016.

The points provided here provide the basis for JSR Corporation's unified approach to occupational health and safety.

**(1) Basic 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.

**(2) Courses of Action**

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.

**FY2016 Activities**

Fully acknowledging the gravity of a serious workplace accident that occurred in July 2014, JSR Group has launched a project designed to rebuild its safety infrastructure and culture based on a philosophy that "safety is the most important factor for everyone working in the manufacturing industry and a major premise of business." At the present time, this project is being proactively and aggressively implemented by a new headquarters safety organization (namely, Safety and Health Promotion Department and Workplace Safety Technology Division within the department) that was created in FY2015.

Additionally, we are "moving toward becoming a 'mutually enlightened organization' in terms of (1) extremely safe behavior, (2) securing human resources, and (3) optimal risk management" with a vision of where we want to be in FY2020. This will start with a transition from a project-led "reactive" stage to a manager-led "dependent" stage.

Our safety and health activities in FY2016 also included efforts to improve safety technology. Here, we focused not only on verifying safety infrastructure developed thus far but also on building of accident investigation methods and reinforcing our PHA.\* Moreover, we also turned our attention to fostering a safety culture. We launched a number of concrete activities, among them spreading safety-related values throughout the organization, enhancing education and training systems in production departments, bringing in the production manager education programs of external organizations, reviewing our personnel evaluation and award schemes, and building a safety culture-level self-diagnosis system. Beginning in FY2017, we will verify the effects of these activities as we put them to full-scale use.

\*PHA: Process Hazard Analysis

FY	2014	2015	2016	2017	2018	2019	2020	2021	2022
	Stage	Reactive (action in response to accident)		Dependent (action under guidance of manager)		Independent (action taken by individuals)		Mutually enlightened (action to encourage colleagues)	
Leader	Project			Manager		Individual		Team	
Main activities	<ul style="list-style-type: none"> <li>● Safety equipment measures                             <ul style="list-style-type: none"> <li>- Prevention of catching, entanglement, falls, etc.</li> <li>- Development of safety equipment and construction standards</li> <li>- Review of risk assessment criteria</li> </ul> </li> <li>● Development and trial implementation of safety infrastructure                             <ul style="list-style-type: none"> <li>- Review of production and safety department organization</li> <li>- Development of safety infrastructure information</li> <li>- Review of standards (safety evaluations, etc.)</li> <li>- Creation of system for sharing accident data</li> </ul> </li> <li>● Identification of safety culture challenges                             <ul style="list-style-type: none"> <li>- Identification of challenges through external diagnosis</li> <li>- Identification of challenges through employee interviews</li> </ul> </li> </ul>			<ul style="list-style-type: none"> <li>● Development and trial implementation of safety infrastructure                             <ul style="list-style-type: none"> <li>- Building accident investigation methods</li> <li>- Strengthening of PHA</li> <li>- Strengthening of operation with use of ICT technology</li> <li>- Review of indirectly-related department organization</li> </ul> </li> <li>● Maintenance of safety infrastructure                             <ul style="list-style-type: none"> <li>- Post-trial verification and effective implementation</li> </ul> </li> <li>● Trial safety culture development                             <ul style="list-style-type: none"> <li>- Penetration of safety values (mission, definition, etc.)</li> <li>- Reinforcement of education (managers, production departments, full-time staff, etc.)</li> <li>- Review of various schemes (auditing, awarding, evaluation, etc.)</li> <li>- Safety culture level monitoring (building a self-diagnosis system, etc.)</li> <li>- Improvement of risk recognition (use of IoT, etc.)</li> <li>- Initiatives to control unsafe behavior</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>● Maintenance and optimization of safety infrastructure                             <ul style="list-style-type: none"> <li>- Optimization of equipment, organization, and mechanisms with the latest technologies based on safety performance</li> </ul> </li> <li>● Safety culture development                             <ul style="list-style-type: none"> <li>- Strengthening of weak areas at company, business location, and worksite levels with application of safety performance and safety diagnoses</li> <li>* Linking safety awareness and safe behaviors of individuals to safety improvement and personnel development</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>● Maintenance and optimization of safety infrastructure                             <ul style="list-style-type: none"> <li>- Optimization of equipment, organization, and mechanisms with the latest technologies based on safety performance</li> </ul> </li> <li>● Maintenance and improvement of built safety culture                             <ul style="list-style-type: none"> <li>- Strengthening of weak areas at company, business location, and worksite levels with application of safety performance and safety diagnoses</li> <li>* The development of personnel for safety culture development builds the organization, leads to improvements in quality and production outside of safety, and builds the company.</li> </ul> </li> </ul>	

## Building Accident Investigation Methods

It is said that almost all recent accidents are recurrences of past accidents, and that none can be attributed to new causes. Despite the fact that the purpose of accident investigation is to prevent the recurrence of similar accidents, JSR did not adequately utilize accident or near-miss information for this purpose. Because of this, our Workplace Safety Technology Division took the lead in building a system that can investigate the true causes of accidents and implement reliable preventative measures with the guidance of Dr. Masamitsu Tamura, Professor Emeritus of the University of Tokyo. This initiative resulted in the preparation of a collection of accident case studies and other useful tools. We believe we can pass on lessons learned from past accidents by utilizing them in training for young employees who have yet to experience accidents. We know that we must continue applying what we have learned from past accidents. We will therefore put them to use in handing down safety skills by making sure they are known and shared within our organization.

## Building of a Safety Culture-Level Self-Diagnosis System

Because "safety culture" differs greatly depending on the company, business location, or workplace, it is important for organizations to accurately grasp their own safety culture level when building one. Although we carried out external consultants-led safety diagnoses for certain departments after the serious workplace accident, we did not have our own diagnosis system. Given this, in FY2016, we created JSR's own diagnostic system based on questionnaire results to regularly monitor the safety level of each workplace and began using it on a trial basis primarily at production sites. We plan to use this system to ascertain strengths and weaknesses at the company, business location, and workplace levels and connect what we learn to the building of a culture of safety.

## Review and Expansion of JSR's Award Scheme

Twenty-eight years ago, we launched the "Kawasaki Commemorative Safety Award" scheme as a safety award program. Over the years since, we have used it to mainly recognize production departments—including those of Group companies—that possess outstanding safety records. However, we changed the scheme in FY2016

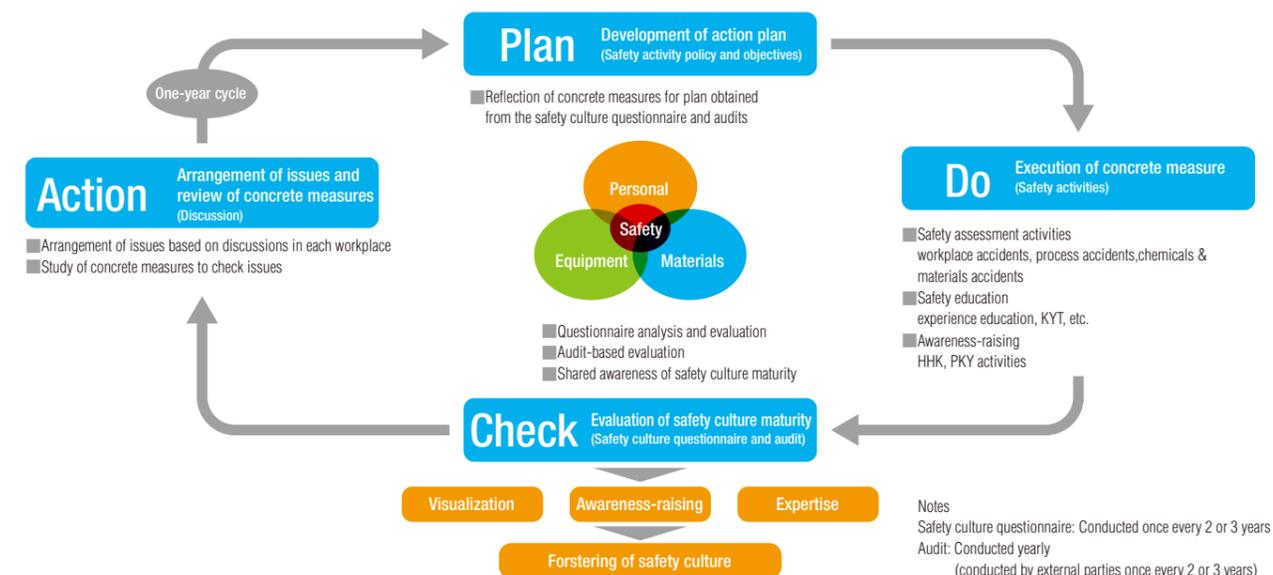
with an eye to stimulating safety and health activities by departments that are indirectly involved in manufacturing and overseas Group companies. The new scheme contributes to across-the-board activity development in other departments by selecting departments that engage in outstanding work from all JSR Group business locations and presenting them through a revamped "Safety and Health Activity Forum." The first forum was held on July 20, which we established as "Safety Day" in the interest of keeping the serious workplace accident of 2014 fresh in everyone's minds. Departments throughout the Group used the opportunity to present reports on outstanding safety and health activities.



A presentation at the First Safety and Health Activity Forum

### Presenters at the First Safety and Health Activity Forum

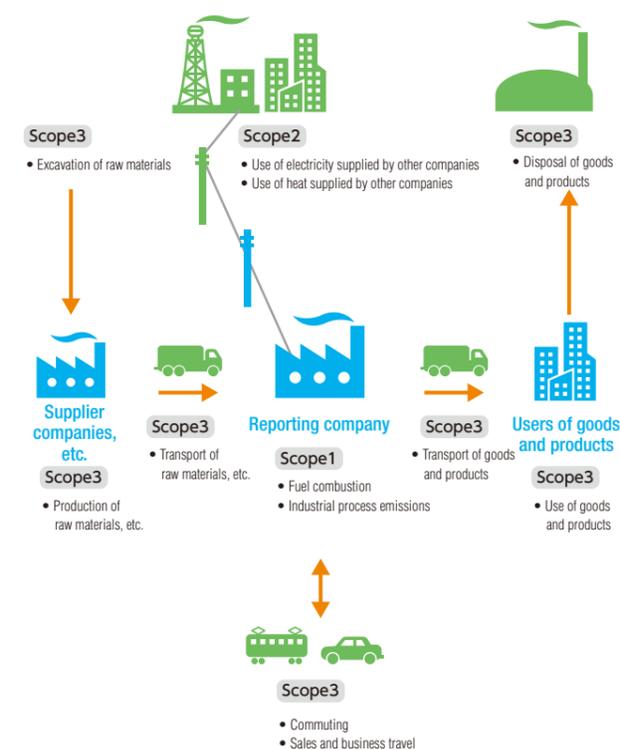
Presenting Group	Item
JSR Group R&D	Development of a chemicals management system using existing infrastructure
Yokkaichi Plant Petrochemical production	Activities to promote a new workplace climate
Chiba Plant Petrochemical production	Strengthening safety management by reviewing education and training methods
Yokkaichi Plant Utility Section	Clarification of grounds for setting DCS warnings (rules and principles) and technology transfer
Kashima Plant Combined business sites; Female employees	Activities to foster a culture of safety from brand-new perspectives
Yokkaichi Plant Production Management Section	Observing people's safety actions



## Climate Change Mitigation and Environmental Impact Reduction

### Initiatives to reduce Greenhouse Gas Emissions in the Supply Chain

With increasing moves in recent years by businesses to manage greenhouse gases indirectly emitted from their supply chains and disclose their emissions at the global level, JSR has launched initiatives to calculate and ascertain emissions and reduce 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.



### Response to Scope 1 and Scope 2

We have established CO<sub>2</sub> emissions reductions targets in our Medium-Term Environmental and Chemical Management Plan and endeavor to reduce our greenhouse gas emissions through energy-conservation activities. In FY2012, we established our "System to Reduce Total CO<sub>2</sub> Emissions from Three plants by 6% Compared to FY1990," and achieved our goal with a CO<sub>2</sub> emissions reduction of approximately 9% compared to FY1990 in FY2016.

### Response to Scope 3

We are systematically implementing initiatives to reduce our transport-sector energy as a specified shipper under the amended Energy Conservation Act. In FY2016, we again successfully achieved a year-on-year improvement in our model shift rate and also a year-on-year reduction in our per-unit energy consumption in the transport sector.

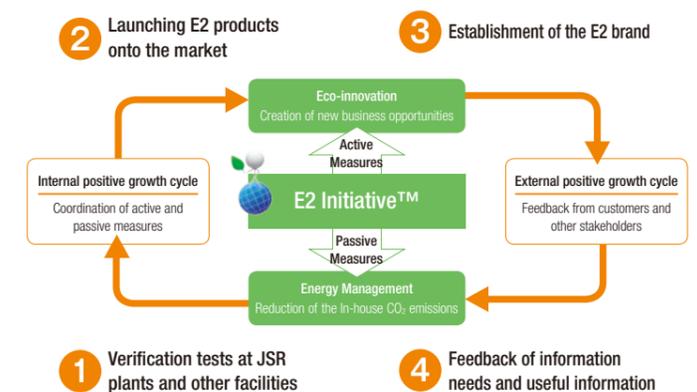
### Working to solve Environmental Issues through Deployment of the E2 Initiative™

Because both humans and innumerable other living things share this planet Earth, we must make an earnest effort to deal with environmental issues. JSR Group has adopted its E2 Initiative™ as a concept to simultaneously reduce environmental impact and create new business opportunities using the environmentally-friendly aspects of our products.

The E2 Initiative™ is based on "Eco-Innovation," which is designed to create business opportunities based on the environment, and "Energy Management," which is focused on reducing CO<sub>2</sub> emissions. It is a concept that allows us to create value both in active and passive ways. As we shifted our concept of value from the conventional two approaches of "differentiation" and "cost," our new concept of "environmental performance" has become essential.

By using the "Life Cycle Assessment (LCA)" to evaluate the "environmental impact" of our products from the design stage in the product development to the use of the product, we are working to solve environmental problems throughout business operations.

### The E2 Initiative™ Concept



## Water Resources Conservation

In January 2017, JSR Group's Tianjin Kuo Cheng Rubber Industry Co., Ltd. (China) was certified as a water-conserving company by the People's Government of Tianjin Municipality as a result of its reinforced efforts to conserve water. The report of the company that surveyed its water usage gave Tianjin Kuo Cheng Rubber Industry a score of more than 90 points for a number of achievements, including having a water recycling rate above 93%, operating within the limits of water use plans prepared every three months, not exceeding its water use of the previous year when compared to production, and introducing water-saving models for all of its equipment. Tianjin Kuo Cheng Rubber Industry aims to maintain its rating by persisting with its water-conservation efforts.



## Communication with Customers, Business Partners, Shareholders and Investors

### Communication with Customers

We know that, given our Corporate Mission of “Materials Innovation - We create value through materials to enrich society, people and the environment,” the most 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 also strive to ensure the quality and safety of our products so that our customers can use them with peace of mind.

#### (1) Customer feedback questionnaires

Customer feedback questionnaires are conducted every two years to obtain customer opinions on the effectiveness of our management, product development, product quality, and technical and sales support. Even though we routinely receive positive scores in product quality, and technical and sales support, we are dedicated to continually improving product quality and meeting changes in demand.

#### (2) JSR Corporation received SCQI Award from Intel Corporation

In March 2017, we received the FY2016 Supplier Continuous Quality Improvement (SCQI) Award from Intel Corporation, a world-class semiconductor manufacturer.

The SCQI Award is Intel’s most prestigious award given to suppliers. It is awarded to outstanding suppliers that achieve extremely high standards in terms of quality, cost, supply system, technical capability, customer service, labor and ethical conditions, and environmental sustainability.

#### (3) JSR Micro Taiwan Co., Ltd. received AU Optronics’ Supplier Award

In April of 2016, AU Optronics Corporation (AUO), one of Taiwan’s two leading LCD manufacturers, presented JSR Micro Taiwan Co., Ltd. with its Supplier Award. The award is given to companies that have supported AUO’s growth over the years. JSR Micro Taiwan was among 15 AUO’s suppliers that received it.



### Communication with Business Partners - Supply Chain Management-

We ensure that our business partners understand our CSR/sustainable procurement policy, established in JSR Group Purchasing Policy, which 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 launched in FY2010, we survey the social and environmental considerations of our suppliers using a questionnaire. When an issue is detected, we dispatch 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, our policy based on the above-mentioned Purchasing Policy is to never permit the use of conflict minerals, either directly or indirectly. We gain our business partners’ cooperation in confirming that we use no conflict minerals.

### Communication with Shareholders and Investors

In addition to conducting briefings on our business results after each quarter, we also organize seminars for investment institutions and analysts as well as various other events to achieve extensive bi-directional communication with shareholders and investors.

In FY2016, we held seven seminars for corporate investment analysts. They included explanatory meetings concerning our Life Sciences Business. We hold a total of nearly 250 meetings for investors in Japan and overseas per year. Feedback on opinions and questions received through these meetings is shared with management on a regular basis.

With regard to the global development of JSR Group companies, we intend to implement IFRS\* from March 2018 in an effort to improve the comparability of financial information regarding international capital markets.

\*International Financial Reporting Standards

## Communication with Employees and Society

### Work-Style Reform

In February 2017, we held our first seminar primarily focused on work-style reform. The seminar’s focal point was “work-style reform: reducing labor hours × raising productivity = time management that produces results.” More than 160 employees participated. We invited Mr. Takayuki Kawashima to serve as the seminar’s lecturer. Mr. Kawashima is a pioneer in Japan’s “IkuBoss”<sup>\*</sup> movement and active as a member of the Cabinet Office’s Council for Gender Equality and the NPO Fathering Japan. He spoke on views of the topic—namely, “work-life balance is not a welfare issue but a management strategy” and “seeking something extremely difficult: reducing work hours while producing results”—as well as initiatives for raising organizational productivity. Following the seminar, Mr. Kawashima and JSR’s officer in charge of diversity held a discussion on the topic of “diversity and work-style reform.”

Through the seminar, we gained an appreciation of the goals and philosophy of Fathering Japan’s activities and decided to join the Fathering Japan-led “IkuBoss Company Alliance” in May 2017.

<sup>\*</sup> “IkuBoss” refers to a boss (manager or management position) who enjoys his or her own work and personal life, produces results for his or her organization, and supports the careers and daily lives of his or her subordinates and staff by considering their work-life balance.



Work-style reform seminar at JSR Head Office

### Reshaping the Corporate Culture to Foster Innovation

Looking to generate the innovation that will fuel JSR Group’s sustained competitiveness, we established a “4C-no-Mori” and “Meeting Rooms” as spaces to encourage communication and collaboration among researchers in the main laboratory building of JSR’s Yokkaichi Plant in December 2015. We also partially introduced a “free address” system that does not assign individual researchers to specific seats.

“4C-no-Mori” is named after the “4Cs”<sup>\*</sup> of JSR Group employees’ Course of Action. It was conceptualized as a “forest” (Japanese: mori) that nurtures interaction. It is equipped in-house wireless LAN, allowing it to serve as an ordinary work environment, and also has vending machines for coffee and snacks. The aim is that, by being used as a space for communication and relaxation, it will become a place where spontaneous communication

inevitably occurs and where unexpected conversations and information-sharing become commonplace. In FY2016, “4C-no-Mori” was used to hold in-house presentations and seminars as well as yoga lessons and other recreational programs.

“Meeting Rooms” are glass-enclosed area designed to be reminiscent of an ocean. It permits brainstorming in an open atmosphere and encourages the sharing of in-house knowledge by giving visibility to the content of discussions.

We also plan to utilize the free address system and to create work environments that incorporate inventive spaces for interaction in rooms of a new research wing of JSR’s Yokkaichi Plant that is scheduled for completion in FY2017 as well as JSR-Keio University Medical and Chemical Innovation Center (JKIC). Through office makeovers like those mentioned above, we intend to cultivate a culture of exchange that is not bound by inter-departmental barriers and to build environments that foster innovation.

<sup>\*</sup> See P9-P10 JSR Group’s Corporate Mission and Priority Issues The 4Cs of the Course of Action



Work in “4C-no-Mori”



An in-house seminar in “4C-no-Mori”



Glass-enclosed “Meeting Rooms”

## Physical Health

The JSR Health Insurance Society organized a "Head Office Exercise Support Seminar: Calisthenics" for JSR Group in Tokyo. The seminar was held with the aim of ensuring that more employees are healthy and vibrant by supporting fitness in not only our plants but also our management and sales departments. Health and exercise instructors of the JSR Health Insurance Society visited JSR's Head Office and Group companies to provide instruction on "refresh stretching" that prevents stiff shoulders and lower back pain. Many employees participated even though the instruction was provided during business hours. The results of a post-seminar questionnaire survey indicated that participants were extremely satisfied, as 90% of respondents said they found the stretching helpful. We will continue health-oriented activities for the purpose of "supporting health and fitness" and strive to implement initiatives that promote health and productivity management and help improve employee productivity.



Refresh stretching (JSR Head Office)

## Social Welfare

JSR Group conducts social welfare-related activities at domestic and overseas offices and plants.

In FY2016, Emulsion Technology Co., Ltd. received a letter of appreciation from the Minister of Health, Labour and Welfare for its many years of cooperation in promoting blood donation activities. Additionally, in September 2016, JSR Micro Korea Co., Ltd. joined with companies in the Ochang Scientific Industrial Complex to visit and donate fruit to nearby senior citizens' welfare centers.



Receiving a letter of appreciation from the head of the Japanese Red Cross Mie Blood Center

## Education including Social Education

JSR Group provides support for next-generation development and education opportunities through our continued efforts to provide education and internship opportunities to students both in Japan and abroad. We also provide private-sector training to teachers as well as career experience opportunities.

In May 2016, JM Energy Corporation was selected by Hokuto City's Izumi Elementary School as a place to visit for its school-wide activity called "Furusato Daikoshin" (great hometown march). Seventeen teams comprised of a total of some 170 first to sixth graders toured the JM Energy plant. They saw actual worksites, watched a JM Energy video that explained work processes, and experienced what it's like to be in a manufacturing plant.

## Assistance to Disaster-Stricken Areas

In February 2017, we held a "Tohoku reconstruction support market and wine sale with JSR Trading" at our Head Office.

Held as a joint CSR program by JSR and JSR Trading Co., Ltd., this collaborative undertaking featured sales of specialty products from three Tohoku prefecture that were stricken by the Great East Japan Earthquake (Iwate, Miyagi, and Fukushima) and tasting and sales of wines imported by JSR Trading. Ten businesses from the three Tohoku prefectures set up sales stands.

Several hundred people from both inside and outside the company visited and enjoyed purchasing products while talking to the stand operators. Sales were brisk, with some products selling out almost immediately. Six years after the Great East Japan Earthquakes, the affected areas continue to move from the reconstruction phase to the business promotion phase. Nonetheless, more than 120,000 people continue to live as evacuees, and thus the road to recover has only just begun. In addition to making a contribution to society through our business activities, we will continue to actively meet society's requirements and resolve social issues as a responsible member of society.

Cooperation: Office for disaster victim support coordination, Reconstruction Agency, FY2016, and Mitsubishi Research Institute, Inc.



Commemorate photograph of JSR employees and stand operators

Our initiatives targeting "Basic Issues in JSR Group's Corporate Activity" support our initiatives to address "Social Issues that JSR Group Can Help Resolve" and "Social Issues Attributable to JSR Group's Corporate Activity."

## Risk Management

### Reinforcing our Risk Management

JSR Group believes that "preventing a major crisis from occurring" and "minimizing its effects on business activities" are important management roles. We have formulated Risk Management Policies and established a Risk Management Committee through which we actively pursue risk management activities. Every year, we identify potential risks that could have a particularly significant impact on business continuity. We organize those risks into the "JSR Group Risk Factors" and are executing countermeasures to reduce them. For example, in FY2016 we conducted an "information security incident" drill to prepare for a cyber attack, which is one of the JSR Group Risk Factors. We also took steps to fortify our legal compliance. They included preparing a Chinese version of the Compliance Handbook that is based on Chinese laws and ordinances. Our senior management monitors our risk countermeasures and regularly reviews the JSR Group Risk Factors and then reflects the results on risk management activities for the following fiscal year.

Moreover, as an initiative aimed at business continuity, our Head Office formulates Business Continuity Plans (BCM) that envision scenarios in which our plants shut down for a certain period of time. We also systematically conduct disaster drills and evacuation drills at our plants and offices to improve our crisis responsiveness and minimize impact. As for our physical infrastructure, we are proceeding with step-by-step seismic reinforcement. In particular, we are conducting seismic retrofitting at our production bases and manufacturing facilities after establishing independent standards that are even stricter than those required by law.



The Head Office's crisis center during FY2016 crisis management drill



The command headquarters during a FY2016 general disaster drill at the JSR Chiba Plant

## Compliance

### Promoting Corporate Ethics Activities based on Three Pillars

To live up to our management policy, which requires us to fulfill all responsibilities to our stakeholders, we advance Group-wide corporate ethics activities, monitor and enhance our legal compliance, and promote respect and safeguarding of human rights in line with JSR Group Principles of Corporate Ethics.

(1) We ensure that employees at all Group companies can become acquainted with JSR Group Principles of Corporate Ethics in their native language or in a language in which they are proficient. Moreover, we provide e-learning programs and training developed for all employees of JSR Group companies in Japan.

(2) We work to grasp and improve corporate ethics-related issues by conducting surveys on awareness of corporate ethics that target all JSR Group employees.  
 (3) We operate two types of hotline (internal reporting channel). For employees, we have an internal hotline connected to contact points for each JSR Group company or the Corporate Ethics Committee and an external hotline connected to a designated independent attorney. In addition, we have another external hotline connected to an independent and specialized outside organization that is capable of handling communication in Japanese, English, Chinese, Korean, and Thai.

Six reports were received via the hotlines in FY2016. We have also set up a "Hotline for Business Partners" for receiving reports from business partners of Group companies in Japan. No reports have been received since the hotline was opened in FY2014.

## Corporate Governance

### Tackling Corporate Governance as an Important Management Challenge

JSR continues to focus on the enhancement of corporate governance as an important management challenge.

As a company with audit & supervisory board members, JSR principally monitors and oversees the execution of duties by directors and the management through its Board of Directors and audit & supervisory board members. We have continuously strengthened the function of management supervision, improved efficiency in decision making and business duties execution, and enhanced the transparency and soundness of our business management to raise corporate value over the medium to long term. To that end, we have implemented measures that include the introduction of an officer system; the appointment of outside directors and audit & supervisory board members who are independent from the company and have extensive business experience and expertise; the establishment of a Remuneration Advisory Committee and Nomination Advisory Committee, the majority of whose members are independent outside directors; and the introduction of performance-based remuneration covering the medium and long term.

Additionally, we are strengthening our management monitoring and oversight functions by appointing two 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) to the three-member Audit & Supervisory Board.

Moreover, we strive to ensure and improve the effectiveness of internal control by systematically conducting internal audits through an organization specialized in internal audit that is independent from business divisions and reports directly to the president ("Corporate Audit Department"), by strengthening collaboration between the Corporate Audit Department and audit & supervisory board members, and by instituting a reporting system whereby important issues are reported by directors and employees to the audit & supervisory board members when deemed necessary.

Inclusion into International Indices and universe for international socially responsible investment (Current as of July 3, 2017)

JSR Group CSR activities have been evaluated by outside organization. We have earned inclusion into the following socially responsible investment (SRI) indices and brands.

We have been a constituent of the FTSE4Good Index Series since 2004.

We were selected as one of top 120 global companies included in the Euronext Vigeo Eiris World 120 Index.

We were reconfirmed for inclusion in the Ethibel Pioneer & Excellence Investment Registers on June 30, 2017.

We have been selected as a member of the Morningstar Socially Responsible Investment Index, Japan's major SRI index, since 2009.

We were selected by SNAM (Sompō Japan Nipponkoa Asset Management Co., Ltd.) as a brand for investment of the SNAM Sustainable Investment Fund in recognition of our standing as a company with a high ESG (Environment, Social, and Governance) evaluation.

In March of 2017, we were selected as an FY2016 Nadeshiko Brand initiative by the Ministry of Economy and Tokyo Stock Exchange in recognition of our efforts to support female employees.

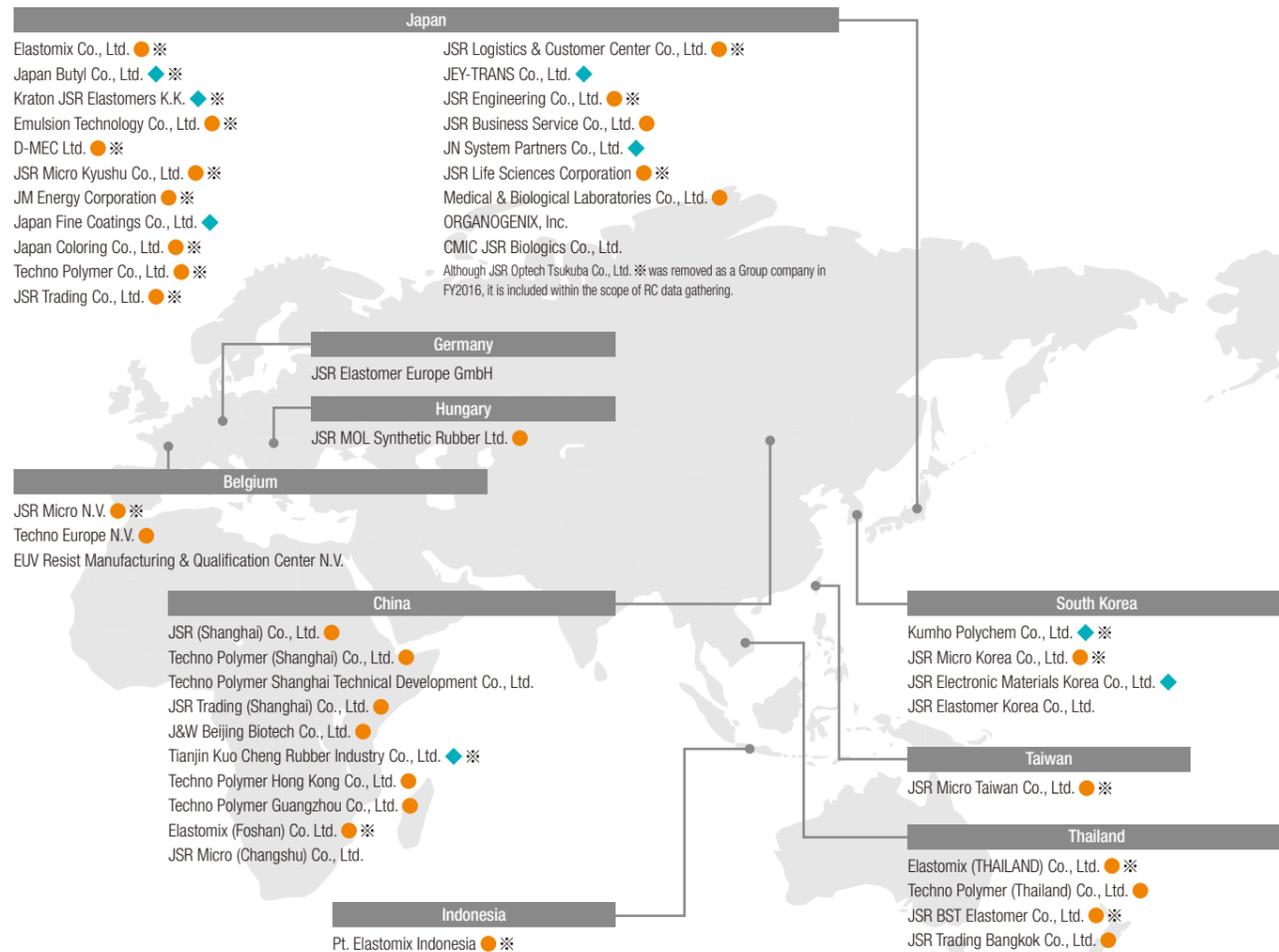
"White 500" Enterprise of the Certified Health and Productivity Management Organization Recognition Program. We were selected as a company practicing outstanding health and productivity management by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.

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) evaluation.

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 also ranked 90th in the 2016 Channel NewsAsia Sustainability Ranking. Additionally, JSR Group has continually been ranked in the Global Compact 100 since FY2013.

JSR Group Companies (as of March 31, 2017)



JSR Profile (as of March 31, 2017)

Company name: JSR Corporation  
 Established: December 10, 1957  
 Head office: Shiodome Sumitomo Building, 1-9-2 Higashi-Shimbashi, Minato-ku, Tokyo, Japan  
 Representative Director: Mitsunobu Koshiba  
 Capital: 23.3 billion yen  
 Number of employees: 6,790 (consolidated)

JSR Operations (as of March 31, 2017)

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	Performance Polymer Research Laboratories	Yokkaichi City, Mie Prefecture
	Display Materials Research Laboratories	Yokkaichi City, Mie Prefecture
	Fine Electronic Materials Research Laboratories	Yokkaichi City, Mie Prefecture
	Advanced Materials Research Laboratories	Yokkaichi City, Mie Prefecture
	Tsukuba Research Laboratories	Tsukuba City, Ibaraki Prefecture
Overseas	Singapore Branch	Singapore
	Taiwan Branch	Taiwan

Notes: 1. JSR closed its Wallisellen office in Switzerland effective from July 1, 2016, and the transferred its business to JSR Elastomer Europe GmbH.  
 2. Effective from April 1, 2017, JSR established the Yokkaichi Research Center and placed thereunder the Performance Polymer Research Laboratories, Display Solution Materials Research Laboratories (renamed), Fine Electronic Materials Research Laboratories, Advanced Materials Research Laboratories, and Edge Computing Research Laboratories (newly established).  
 3. JSR closed its Singapore Branch on June 12, 2017.

Major JSR Group Businesses (as of March 31, 2017)

Manufacturing and sales of the following products

Business Segments		Products/Materials	
Petrochemical Products Business	Elastomers	Synthetic Rubbers	Synthetic rubber such as styrene butadiene rubber, polybutadiene rubber, ethylene propylene rubber, etc. and carbon master batches and rubber compounds
		TPEs	Thermoplastic elastomers and processed products
		Emulsions	Paper coating latex, general purpose industrial latex, acrylic emulsion, latex compounds, etc.
		Functional Chemicals	Highly functional coating materials, high performance dispersants, functional particles for industrial use, latent heat storage materials, materials for heat resistant paint, battery materials, etc.
	Others	Chemical products such as butadiene monomer	
Fine Chemicals and Other Products Business	Fine Chemicals Business	Semiconductor materials	Lithography Materials (photoresists, multi-layered materials), CMP materials, packaging materials, etc.
		Display materials	Color liquid crystal display (LCD) materials, anti-reflection film materials, functional coating materials, etc.
		Optical materials	Heat-resistant transparent resin, functional films, high-performance UV curable resins, stereolithography and other products
	Strategic Business and other materials		Life sciences (in vitro reagents for diagnostics and/or research, raw materials for such reagents, bioprocess materials, contract development and manufacturing of biopharmaceuticals) and Lithium ion capacitors

Financial Information

