# JSR Group COST DIA BED DIA Report 2013

JSR Corporation





A large number of materials are utilized for a wide variety of products available to general end-users, even if they do not recognize or are not aware of such materials. Items useful in your daily life and products to improve the world are underpinned by the power of the chemical industry.

By pursuing new possibilities of materials through the power of chemistry, and contributing to the development of society, the JSR Group would like to ensure our own sustainable growth.



# **Editorial Policy**

1 JSR Group CSR Report 2013

The JSR Group's corporate social responsibility (CSR) is to act with integrity as a good corporate citizen and carry out initiatives to meet the expectations of society. We publish our CSR reports to inform all stakeholders of JSR Group policies and initiatives with a view to a sustainable society. In the CSR Report 2013, Feature Article 1 gives an overview of how the JSR Group's businesses relate to society, with particular focus placed on strategic businesses, while Feature Article 2 presents a dialogue between external experts and our executives, that discusses the JSR Group's CSR from a broad perspective. Our CSR activities are reported for each target stakeholder.

A third-party opinion and an independent review regarding our activities and report are provided (with the opinion available both in the printed version and on our website, and with the review only on the website).

# The CSR Report 2013 Format

# Online

The online version presents a comprehensive report on the JSR Group's CSR activities. In addition to the content provided in the printed version, the online version details specific initiatives regarding "Responsible Care" (the environment, health, and safety) and many other responsibilities for our stakeholders.

Web HOME > CSR > CSR report 2013

http://www.jsr.co.jp/csr/csrreport2013.shtml

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- Executive Commitment
- Feature Article 1: Manufacturing for the Future
- Feature Article 2: Dialogue with Society \*Full text
- About the JSR Group JSR Group Profile / Essential Elements
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- Commitments from Global Group Companies
- Responsibility to Our Stakeholders

Customers / Business Partners

Safety Assurance for Customers/Business Partners / Chemical Products Safety / Green Procurement Measures / CSR Procurement Measures

Employees

Basic Policies on Human Resources Programs / Course of Action "The 4Cs" / Recruitment and Promotion of Diverse Human Resources / Work-Life Management / Communicating with Employees / Human Resource Development

Responsible Care (RC)

RC Management / Material Flow Management / Initiatives to Prevent Global Warming / Effective Use of Resources / Initiatives to Reduce Environmental Impact / Safety Initiatives / RC Activities by Group Companies

- E2 Initiative<sup>™</sup>
- Biodiversity Conservation
- Community Relations
- Shareholders
- Third Party Opinion / Independent Review
- Comparative Table of Guidelines
- Report Download

### **Referenced Guidelines**

- •Sustainability Reporting Guidelines, 3rd Edition, Global Reporting Initiative (GRI)
- Environmental Reporting Guidelines 2012, Ministry of the Environment
- Environmental Accounting Guidelines for Chemical Companies, Japan Chemical Industry Association (JCIA)
- Environmental Accounting Guidelines 2005, Ministry of the Environment

Note: Details on how this report conforms to the GRI Guidelines are available in the online version.



CSR Report 2013 > Comparative Table of Guidelines

#### **Target Period and Fiscal Year**

April 1, 2012 – March 31, 2013 (Some parts of the CSR Report 2013 include activities and initiatives conducted since April 2013.)

Our fiscal year runs from April of the previous year to March of the year indicated.

#### **Operations Covered**

JSR Corporation and 38 Group Companies Operations for which data was collected on "Responsible Care" (the environment, health and safety) Yokkaichi Plant, Chiba Plant, Kashima Plant, Yokkaichi Research Center, Precision Processing Research Laboratories, Tsukuba Research Laboratories, 14 domestic Group companies<sup>\*1</sup>, and 9 overseas Group Companies<sup>\*2</sup>

\*1 Companies marked with a \* in the list of JSR Group companies on page 26 \*2 Shanghai Rainbow Color Plastics Co., Ltd., Elastomix (Foshan) Co., Ltd., Tianjin Kuo Cheng Rubber Industry Co., Ltd., Kumho Polychem Co., Ltd., Elastomix (Thailand) Co., Ltd., JSR Micro N.V., JSR Micro, Inc., JSR Micro Korea Co., I td., JSR Micro Taiwan Co., Ltd.

**Publication Information** 

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Next scheduled issue: July 2014

(Previous issue: August 2012)

#### The JSR Group's CSR Report 2013 is available both in printed and online versions.

# **Print**

The printed version features CSR activities in the JSR Group that we would particularly like to communicate to our stakeholders. This version also provides the highlights of our previous fiscal year's activities.

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#### Responsible Care®

("Responsible Care" is referred to as "RC" i this report )



Responsible Care (RC) refers Responsible Care to autonomous management activities aimed at carrying out and improving policies relating to safety, health, and the environment as part of a company's public commitment in its management policy. It is based on the principles of self-determination and self-responsibility on the part of the company involved in producing and handling chemical substances, and covers the lifecycle of chemical substances - from development and production to distribution, use and disposal.

# We will Continue to Take on Challenges to Enrich Society under the Corporate Mission of "Materials Innovation," Remaining Alert to the Ever-changing Times



# Keeping up with the changing times and developing a growth scenario

As part of the process to realize its vision of what the Group should be by 2020, the JSR Group has been implementing JSR 20i3 ("twenty thirteen"), the mid-term business plan, for three years since FY 2012 (April 1, 2011 to March 31, 2012), a period positioned as the stage for "activation toward growth." For the financial crisis period that followed the Lehman crash, we considered that the keywords of the time were "uncertainty" and "diversification," of the times, but since FY 2013 we have seen some signs of the emergence of a new global framework. One of these signs is the shale gas revolution. When stable production and procurement of shale gas becomes possible, it will certainly lead to the diversification of raw materials and a shift in the geopolitical balance. Global economic conditions are more likely to be better than worse and we must make sure to pounce on this opportunity. We will continue to be alert to these changes and develop a scenario for steadfast growth that reflects the new trends for the next mid-term business plan starting from FY 2015.

The petrochemical product business, one of our core businesses, is affected greatly by stability in the available volume and price of raw materials procured. Procuring a stable supply of butadiene, one of the most important raw materials, is an ongoing issue. We are currently studying the use of alternative raw materials to produce butadiene, while also developing production technologies for synthetic butadiene. As a matter of fact, JSR had already studied synthetic butadiene about 40 years ago. However, the depletion of natural resources was not a serious social problem at that time, and synthetic butadiene did not appear to be very effective from an economic perspective. These R&D efforts, initially made a long time ago, are now beginning to create new value.

The fine chemicals business, which has traditionally been based in Japan and is the other of our core businesses, is currently undergoing a change in business style. While carefully monitoring changes in the fine chemicals market, we are shifting our focus to Korea and Taiwan in the case of flat panel display materials and more globally in the case of semiconductor materials to better meet customer needs.

These core businesses are our major sources of income, but it is difficult for us to become a globally influential corporate group even by maintaining continuous growth of these businesses. To give the Group a strong push toward further growth, we need to establish materials and technologies that will help solve global issues as our next pillar of business.

#### Turning solutions for social issues into a growth driver

This new pillar is "strategic business." I am confident that we can contribute to solving global issues by utilizing and integrating our

proprietary technologies and quality control techniques built up through petrochemical and fine chemicals businesses.

The basis of all our strategic businesses is our superior precision materials and processing technologies. By adding functions and applying high-precision processing, we can provide added value to our materials. Based on these technologies, we offer products in two areas: environment/energy and life science.

In the area of environment/energy, we focus on energy-saving and regeneration, thermal storage and insulation, and other technologies that will lead to reduced power consumption. We attach particular importance to lithium-ion capacitors, for which we utilize our proprietary precision processing technology to enhance the performance and safety of electrodes to further increase their quality. We have also commercialized thermal barrier coating agent materials by modifying technologies we had previously developed. These products are aligned with the concept of Eco-innovation of the E2 Initiative™, JSR's unique program that combines environmental conservation with business.

In the area of life science, we established JSR Life Sciences Corporation in February 2012. In addition to medical polymers and particles for clinical diagnostics that we had been producing and supplying, we will expand our business under the new company to include bioprocess materials used for refining antibody-based drugs. The drug discovery process requires a high level of quality and safety, but we possess technologies and knowhow from quality control and production that have been accumulated though semiconductor materials and other businesses. We have been integrating the technologies of two apparently unrelated fields-life science and semiconductors-to create products that will enhance convenience for users. We hope that these efforts will lead to a reduction in production costs of drugs, enabling the availability of more affordable pharmaceuticals, as well as to the development of personal medical care in which drugs and treatment are optimized for each patient. These activities will be conducted as part of the practice of our Corporate Mission, "Materials Innovation."

Regarding conservation of biodiversity, while promoting activities under the company-wide policy adopted in FY 2013, we will further explore ways to integrate biodiversity into our business operations.

# The pioneering spirit of each of our diverse employees will shape our future

As the scope of our business grows from petrochemicals to fine chemicals and strategic businesses, and the geographical areas in which we operate expand, human resource development has become our most important management issue.



I feel that through business activities, each employee has become aware of the need to do business with a global perspective. Employee understanding of our Essential Elements has deepened through repeated dialogue meetings for executives and employees. What we need to do from now on is to ensure implementation of the Course of Action "The 4Cs" (Challenge, Communication, Collaboration, and Cultivation). In the area of life science, for example, we are actively promoting concerted efforts with various external partners through collaboration with research institutions and strategic investment in other companies. Challenge and Collaboration are particularly important when we develop a new business model together by listening to and respecting each other's opinions.

Understanding diverse values is also indispensable. Of 5,800 employees of the Group, about 1,200 are local employees working overseas, and the percentage of employees in this group compared to the total number of employees is expected to increase further. In addition to hiring overseas local staff, we are also promoting female employee engagement and employment of mid-career workers. Management has a duty to create opportunities for employees with diverse backgrounds to hold managerial positions or to be appointed as executives according to their abilities. Furthermore, we are currently developing a system to reward employees who make a serious commitment to the company's growth, as well as their own growth.

# Continuing our challenges to create value with the aim of realizing a sustainable society

In November 2012, a fire broke out at the emulsion-polymerized SBR facilities in the Yokkaichi Plant. Although fortunately there were no casualties, I would like to express my deepest apologies to residents in the community and to the relevant authorities for causing great concern. We had been conducting safety activities on a daily basis, but this accident reminded us that there is no such thing as absolute safety.

As a corporate group with a global presence, the JSR Group is taking part in the United Nations Global Compact to ensure that we act responsibly at all times in the global community.

In March 2013, JSR Micro, Inc., our Group company in the United States, issued "2012 CSR Report." The company decided on publishing the report after being inspired by the JSR Group's CSR Report and after coming to the realization that commitment to society will make them more competitive. I think it was an admirable decision. I would like to see this kind of mindset and action expand globally throughout the Group.

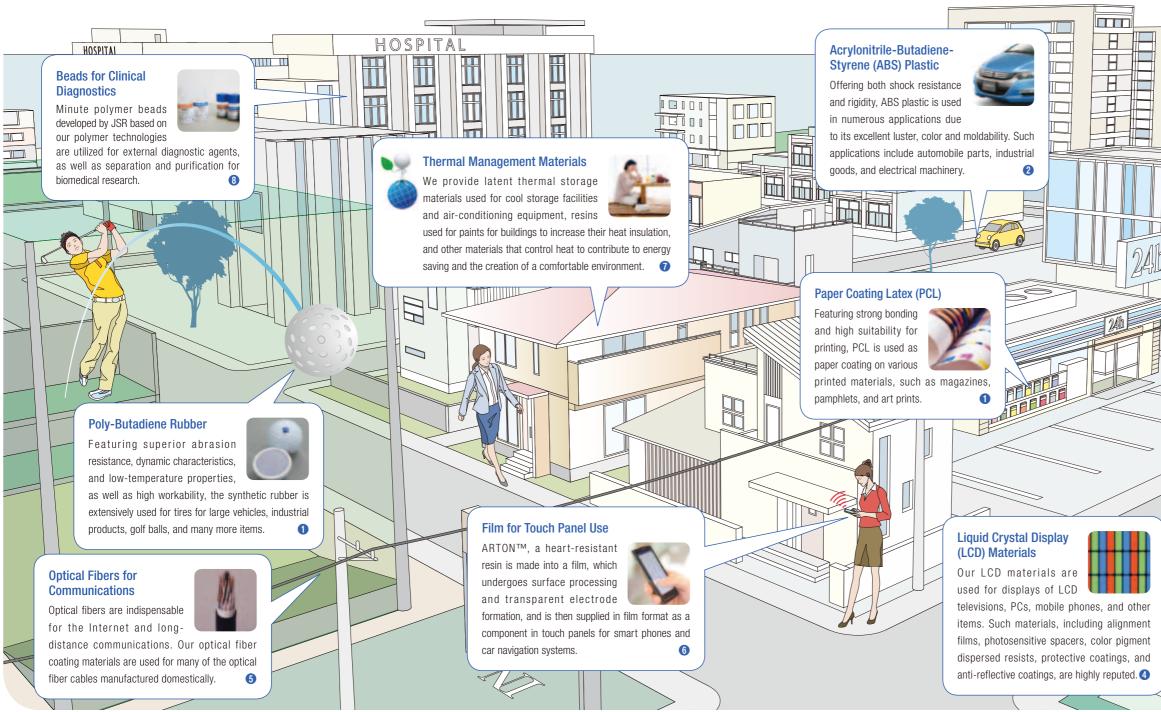
JSR was established originally as a semi-governmental company and has remained independent of any corporate groups throughout its history. In order for us to survive global competition and stand out from the rest of the pack by leveraging our unique characteristics, we need to increase our scale. Our aim is to become a company with a market value that exceeds one trillion yen. To achieve this challenging goal, we are ready to enact changes even in our traditional mindset and business model. We will continue with relentless efforts to create value under the Corporate Mission of "Materials Innovation" with a view to contributing to the creation of a sustainable society and achieving continuous growth of the JSR Group.

Mitsunobu Koshiba Representative Director and President JSR Corporation

# Possibilities of Our Materials

The JSR Group's materials are used in a wide range of products.

By deploying technologies and human resources developed through petrochemical and fine chemical businesses, as well as by utilizing internal and external resources globally, we are strategically expanding our business to new fields, such as the environment, energy, and biomedical materials, that will help address social issues.



#### Elastomers

Since its establishment as an integrated manufacturer of synthetic rubber, JSR has been offering a wide spectrum of petrochemical products, including rubber for tires. TPEs. and emulsions. which are used in people's daily lives.

#### **2** Plastics

We deliver various ABS products with unique characteristics developed through our flexible design capabilities, as well as other types of plastics to users around the world

#### B Electronics Materials

Our electronics materials play a key role in the shrinking and higher integration density of semiconductors, the heart of everevolving electronics products.

### A Display Materials

As a total material supplier of flat panel display (FPD) materials, we lead the industry based on our wide-ranging technologies.

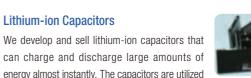
#### 6 Optical Materials

Our optical fiber coating materials and other optical material technologies support ever-growing high-speed fiber optic data communications.

# Strategic Business

6 Precision Materials and Processing

The value of our proprietary materials is maximized by our thin-film formation and precision processing technologies.



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to make effective use of power generated from natural energy, such

as wind and solar, and to store regenerative energy.

Lithium-ion Capacitors

My name is Mr. Eco-Molecule. I'm attached to every eco-friendly product of the JSR Group.

(F2 Initiative<sup>™</sup> car

#### **Thermoplastic Elastomers (TPEs)**

When heated, TPEs soften, facilitating molding and processing. Also, they can be reprocessed, enabling



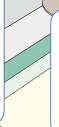
recycling. They are used for the soles of sneakers and other footwear, adhesives, asphalt modification agents, and other items. 0

#### Styrene-Butadiene Rubber

JSR holds the largest share of synthetic rubber used for automobile tires in Japan. Due to its unique structure,



our synthetic rubber developed for fuel-efficient tires realize both excellent wet grip and low rolling resistance, minimizing tire-derived fuel efficiency loss.



#### Semiconductor Materials

Semiconductors comprise the heart of IT equipment. We provide materials essential to manufacturing such semiconductors.



including photoresists, chemical mechanical planarization (CMP) materials, and packaging materials. 8

#### Strategic Business

### **7** Environment & Energy

We are working on the development of materials necessary for new environmental and energy technologies. We will contribute to the creation of a sustainable society by exploring the possibilities of the materials we work with.

#### Strategic Business

### **Biomedical Materials**

Innovative materials developed using our accumulated material technologies and leading-edge technologies acquired through our global network will open up the future of life sciences.

# **Technological Expertise Gained over Many Years Opens Up a New Horizon for Our Business**

### Creating a new pillar of business through continuous efforts at business cultivation

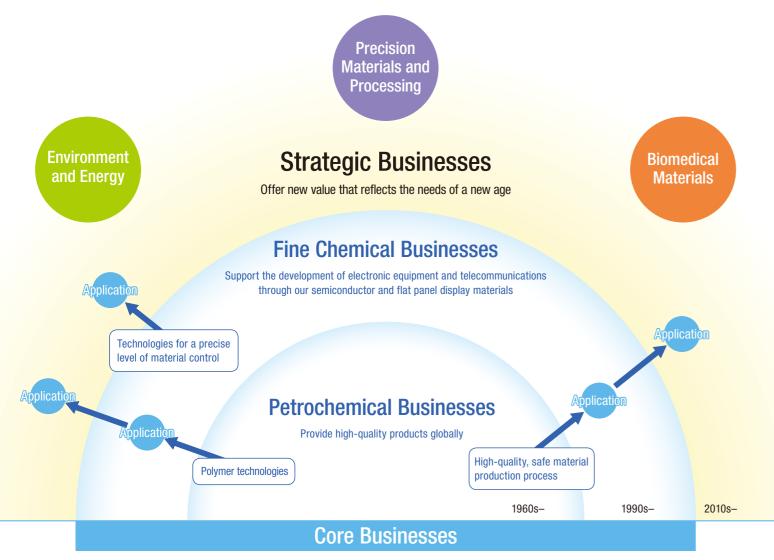
The origin of the JSR Group dates back to 1957 when Japan Synthetic Rubber Co., Ltd. was established to realize the domestic production of synthetic rubber. Ever since then, we have been providing the highest quality class of petrochemical products. In the 1990s, we expanded our business to include fine chemical businesses such as optical and electronic materials. This business expansion, which was based on polymer technologies that we had cultivated in our petrochemical businesses, accelerated our revenue and market share growth. The petrochemical and fine chemical businesses have thus become our core businesses that sustain the Group's performance.

In the current decade, along with the growth of the JSR Group, the importance of social contribution through the realization of our Corporate Mission of "Materials Innovation" is increasing. We have therefore decided to add precision materials and processing, environment and energy, and biomedical materials to our business portfolio as strategic businesses. While several catastrophic events took place recently that changed the business style and social needs of companies, including the financial crisis following the Lehman crash and the Great East Japan Earthquake, which caused significant economic, supply chain, and energy problems, we nonetheless aspire to become a company that can adapt itself to such sudden environmental changes and pursue continuous and stable growth based on our technological strengths.

### Deploying existing technologies and human resources within the Group and external expertise from global sources

In our strategic businesses, it is essential to effectively utilize our existing technologies and develop seeds of innovation realized during R&D into opportunities for our business. For this reason, we have designated the same person to head both the R&D division and the strategic business division, making it possible for the two divisions to collaborate closely and make swift decisions. The Group's researchers also meet customers directly to deepen their understanding of customer needs, and this along with other activities ensures that both R&D and business are intimately intertwined.

Since some research regarding strategic businesses is more advanced in North America and Europe, and priority countries and regions for the businesses differ from those for our traditional core businesses, we are currently developing a new network of R&D and sales bases in strategically important areas to ensure quick access to the latest strategic business trends. Furthermore, in order to gain highly sophisticated technologies and technical knowledge in a timely manner, we are also promoting business partnerships and strategic investments. These efforts will ensure that internal and external expertise and technologies will be deployed and that our products will offer new value for society





Business Planning Department

Strategic Business

(as of this writing)

Strategic Businesses— Our new challenging and fulfilling business field

Our core businesses have been based on the "one-onone" approach, where we maintain close association with, address the needs of, and adapt our technologies to meet the requirements of particular customers. However, our strategic businesses were launched without any sales channels or customers, and are targeted at the global market. So we therefore must change our mindset. To do this, it is essential for us to implement the JSR Group's Course of Action, "The 4Cs." The strategic businesses focus on energy conservation, support for drug discovery, and other themes that are expected to

# **Three Strategic Businesses**

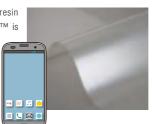
### **Precision Materials and Processing**

The objective of the precision materials and processing business is to offer new value by combining the JSR Group's superior material, functionality, and processing technologies. Technologies developed in this section can become the foundation of the other two strategic businesses.

Information device and precision equipment manufacturers pursue lighter and thinner products at all times and look for innovative materials. As an expert of materials, we meet these needs based on combinations of our different technologies.

#### ARTON™, OPSTAR™, ELART™

ARTON™ is a heat resistant transparent resin with superior optical characteristics. OPSTAR™ is an antireflection coating material for films. ELART™ is a transparent conductive film developed by modifying OPSTAR™ with our precision processing technologies. As a substitute for glass, ELART™ is used for smart phone touch panels and other applications.



# Environment and Energy

The JSR Group, whose main business is petrochemicals, is well aware of the importance of using limited resources efficiently and contributing to energy conservation. We deliver various products developed on the basis of our polymer, material, and energy control technologies.

### CALGRIP™

materials and air conditioners

CALGRIP™ is a latent thermal storage material that stores energy released or absorbed during solid to liquid or other phase changes. Paraffin is stabilized using our proprietary polymer, making the product safe even during transport. The product can be used for the transport of perishables and vaccines and other pharmaceuticals that need to be stored at a constant temperature, in addition to other applications including building



become significant social issues in the future. This integration of social contribution and business creates businesses that are both challenging and fulfilling.

Since the start of the mid-term business plan, JSR 20i3, we have been preparing basic technologies necessary for the businesses and forming partnerships with external organizations. As these preparations are now nearing completion, we position FY 2014, the last year of the plan, as the year for taking action by making the most of what we have built up until today. Our pioneering efforts will continue.

#### SIFCLEAR™

SIFCLEAR™ is a material designed to bring about higher weather and contamination resistance to paint, in addition to longer lasting thermal insulation. We applied a thermal insulation paint containing SIFCLEAR™ to the temporary housing produced for the victims of the Great East Japan

Earthquake free of charge (photo). It is expected that this product will also be effective in Southeast Asia and other regions where the temperature within houses exposed to direct sunlight tends to be very high.



#### **BIOLLOY™**

BIOLLOY<sup>™</sup> is a bioplastic produced by combining a thermoplastic resin with plant-derived polylactic acid. Compared to existing general bioplastics, BIOLLOY™ has five times greater shock resistance. The produc

is expected to be used in containers for cosmetics, shampoos, and others that require thin, light, and eco-friendly materials, as well as in various other applications including automotive interiors, office automation equipment, and household appliances.



#### ULTIMO™

The ULTIMO™ lithium ion capacitor is a durable electricity storage device with enhanced repeated charge and discharge characteristics. ULTIMO™ is used widely to compensate momentary voltage drops that occur in

factories as well as to effectively reuse energy generated when construction machines rotate or stop. We are currently advancing research on the applications of this product to significantly enhance fuel efficiency and other features of automotive performance.



#### **Biomedical Materials**

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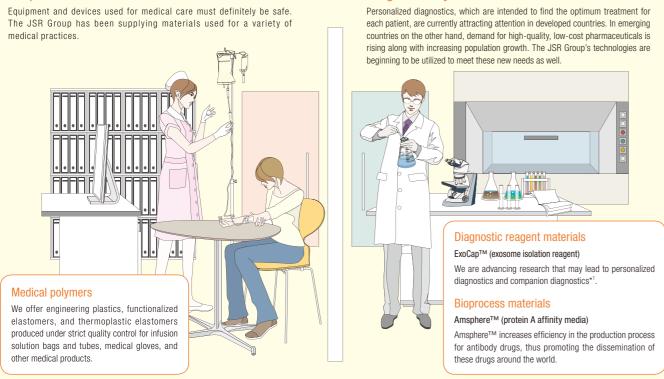
Needs of innovative materials for health and medical care is mounting globally. In addition to the development of medical polymer materials, which has been a part of our business for many years, we will play a key role in the area of drug discovery support as well by making the most of our leadingedge materials and technologies to assist pharmaceutical manufacturers and research institutes in their development of drugs and therapies.

# The Power of Materials Bringing Innovations to Medical Care

Life science is growing rapidly in importance worldwide as well as within the strategic businesses of the JSR Group. This section introduces the issues we are working to solve through the use of our materials and reveals a picture of the future we are trying to create.

Drug discovery

#### Hospitals



\*1 Companion diagnostics: Tests conducted prior to treatment to find out how each patient reacts to a particular drug, including effects and side effects of the drug, to aid physicians in making the best therapeutic decisions for each patient

# Our superior technologies and quality create new value for drug discovery

Like stars in outer space, there are a countless living substances in the human body. I feel rewarded when our technologies lead to the discovery of an unknown substance, elucidation of a substance's function, and development of a new medicine.

JSR Life Sciences Corporation was founded in 2012 by taking over two existing businesses of JSR Corporationdiagnostic reagents and medical polymers-and adding one new business that was still in the pre-commercialization stage at that time-bioprocess materials. It was decided that the biomedical materials businesses would be

separated from JSR to realize quicker product development and to strengthen the service and guality assurance system developed specifically for the businesses so as to meet life science-related social needs. As personalized medicine is increasingly becoming the norm, we will focus on the creation of high-quality materials and reagents that are instrumental in detecting biomarkers and genetic mutations, both of which are indicators of disease. Life science is a field in which the JSR Group can fully display its strengths, and I am expecting our business in this area to expand continuously





Completion of plant of J & W Beijing Biotech Co., Ltd., a joint venture company (April 2012) • U.S.A.

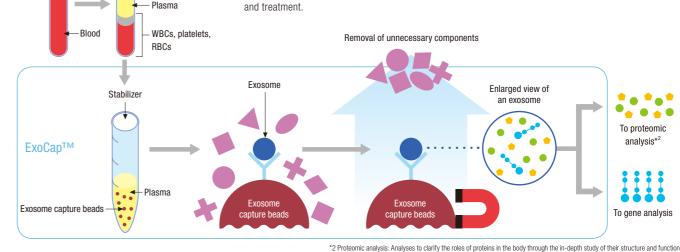
> Expansion of laboratories started at JSR Micro, Inc. (April 2013)



Diagnostic reagent materials useful for research on personalized medicine

Exosome isolation using ExoCap™

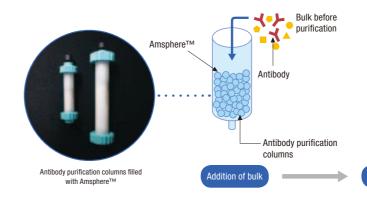
The JSR Group holds one of the largest stores of polymer particles, a raw material used in diagnostic reagents, in Japan. Diagnostic reagents, which are used to increase analytic efficiency, are produced by attaching an antibody against a particular substance to polymer particles. Small exosome particles, which are found in blood, urine, amniotic fluid, and other body fluids, contain many proteins and unknown micro-RNAs (miRNA) and other nucleic acids, and it is expected that the study of exosomes may lead to improved diagnosis and treatment.



Bioprocess materials that change the way of drug development

Antibody drugs, which directly attack disease pathogens, possess high efficacy with few side effects and are beginning to be used for the treatment of diseases such as cancer and rheumatism. Amsphere<sup>™</sup> is a product developed

#### Antibody purification using Amsphere<sup>™</sup>



### J & W Beijing Biotech Co., Ltd. Medical support business in the growing Chinese market

Although the government has started to promote the improvement of medical services in rural areas of China, there are still many people who cannot or don't visit hospitals due to high medical costs, medical insurance problems, and geographical restraints. We therefore aspire to support early detection of disease, improvement of medical services, and reduction of medical costs through our reagent intermediates. It is projected that markets for latex reagents and

chemiluminescent reagents will expand in the future. While we can rely on JSR's technologies and quality control knowhow accumulated in Japan, we are facing many issues including limited technological level of suppliers and a lack of local sales representatives with sufficient technical knowledge. We are a young company, established only about one year ago, and we will continue to devote ourselves to business in order to become prominent in the Chinese pharmaceutical market.

investments and partnerships.

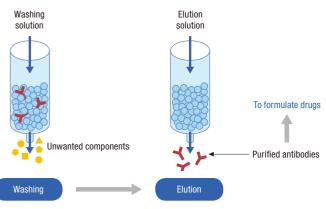
Global network of

life science business

The JSR Group will market the ExoCap™ kit consisting of exosome capture beads, in which magnetic beads are coupled with antibodies that capture exosomes, as well as reagents used for analysis.

In addition to pursuing optimum exosome isolation methods, we are also planning to extend a lineup of reagents for detecting substances contained in exosomes.

on the basis of our proprietary polymer technology, which makes antibody purification faster and more effective during the production of antibody drugs. We will continue to contribute to the development and dissemination of advanced medical technologies.





Kenji Yasuda General Manager J & W Beijing Biotech Co., Ltd.

# What the JSR Group Needs to Do to Continue to Step up Its CSR Initiatives

In the face of an increasing number of global issues, what mindset and actions are necessary for the JSR Group to expand its business while fulfilling its social responsibilities?

In this section, we report on the dialogue and exchange of opinions that took place when three external experts joined us to discuss the issues that the JSR Group needs to address in order to step up its CSR initiatives.

Date: Thursday, June 13, 2013 Place: JSR Roppongi Club

# Acknowledging issues of climate change and resource procurement that may affect the basis of the Group's business

#### Ms. Sonoda

Firstly, I'd like to make clear, from a long-term perspective until about 2050, what global and social issues the JSR Group will be confronted with and how these issues can affect the Group's business.

#### Dr. Yasui

One issue I'd like to point out is climate change, which is becoming more and more serious. As seen in America, hurricanes and other forms of severe weather pose a significant risk to chemical companies that have a complex located by the sea. Important issues include where the threshold for climate change lies and whether people can alter their typical behavior in order to control climate change.

Another important issue is the depletion of natural resources. Oil and coal are usually used as fuel, but we shouldn't waste these resources by simply burning them. They should be considered more as raw materials. Otherwise we will not be able to maintain a long-term equilibrium between society and such natural resources.

#### Shimizu

When planning solutions for these issues over the long term until, say 2030, the important point is to think about when we should start preparing for action by taking necessary lead time into account. For example, the JSR Group uses coal boilers to generate a portion of the

### As a company that does what needs to be done in a flexible manner while envisioning the future at all times, the JSR Group is expected to play a leading role in society at large.



# Naoki Adachi, PhD

CEO of Response Ability, Inc. Studied ecology at the Faculty of Science and the Graduate School of Science, the University of Tokyo, and obtained a doctoral degree in science After working for the National Institute for Environmental Studies (NIES) and the Forest esearch Institute Malaysia (FRIM), he started his career as an independent consultant. Public posts he has held include: Executive Director of the Japan Business Initiative for Biodiversity (JBIB): a standing committee member of the Ecological Society of Japan; a member of the Committee on Biodiversity Private Sector Activities Guidelines, the Ministry of the Environment; and a member of the Committee or Promoting Conservation and Other Efforts Regarding Biodiversity in Economic Society, the Ministry of the Environment.

### Itaru Yasui, PhD

Former Vice-Rector of United Nations University and Professor Emeritus of the University of Tokyo (Professor of the Institute of Industrial Science: former Director of the Research Center for Advanced Science and Technology (RCAST)). He has been working for the National Institute of Technology and Evaluation (NITE) in the areas of inorganic material chemistry, environmental science, and industry-university cooperative research since April 2009. Dr. Yasui is currently a member of the Central Environment Council, the Ministry of the Environment, and an expert panel member of the Council for Science and Technology Policy, the Cabinet Office. He is also the author of many books, including "Kagaku-de nani-ga wakaruka" ("What does chemistry reveal?" (The Chemical Daily Co., Ltd.) and "Bankruptcy of the Farth" (Japanese Standards Association)



# While doing business inevitably involves consuming the Earth's resources, I want the JSR Group to become a company that can assure us that it is doing business in the best way imaginable.

electricity and steam used at its plants. Coal is a reliable fuel considering the volume of reserves and stability of supply; however, there is a concern regarding  $CO_2$  emissions. As Dr. Yasui mentioned, coal is also a precious raw material. If there is a switch from coal to alternative energy sources, several steps will likely be involved, each lasting as long as 10 years. The introduction of renewable energy may be necessary under the national energy policy, but we cannot expect much from photovoltaic or wind power generation if the problem of instability remains unsolved. The electricity issue thus cannot be solved by one company alone and requires a long-term commitment by the national government and through an international framework.

#### Dr. Adachi

Expectations are high for biofuels, but because there is a certain limit to their production, it may be difficult to maintain sufficient production. Bioresources should be considered more as raw materials than as fuels.

#### Kawasaki

Speaking of raw materials, the method in which butadiene, a main raw material for synthetic rubber, is procured is also changing. Butadiene is traditionally extracted from a by-product generated during the production of ethylene. However, Middle Eastern countries as well as the United States are beginning to produce low-cost ethylene using ethane gas and shale gas, respectively. Ethylene produced in these countries is becoming increasingly competitive while ethylene production in Japan is decreasing. Along with



this worrisome trend, the volume of the by-product from which butadiene is extracted is also on the decline. Therefore, we now need to think about an alternative method to procure butadiene that doesn't rely on this traditional by-product, and to accomplish this, we are currently developing the necessary technologies. We are examining the possibility of utilizing gas byproducts generated during the process of oil refining or biomass.

#### Dr. Yasui

You need to be cautious when using bio-derived materials. As with rainforests, where many trees are cut down to make oil palm plantations to produce palm oil, the production of bio-derived materials often carries with it an adverse impact on biodiversity.

# Fulfilling corporate responsibility in the chemical industry's unique long value chain

#### Ms. Sonoda

Dr. Adachi, what do you think are the issues that chemical companies are currently facing?

#### Dr. Adachi

The chemical industry is positioned in an extremely long value chain. Chemical companies need to address changes in both upstream material suppliers in the value chain and downstream product users. Their relationships are complicated, akin to a puzzle. It may be impossible for a single chemical company to adequately consider the environment and CSR throughout the entire value chain. Therefore, to fulfill corporate responsibility, chemical companies need to provide guidance to their suppliers and make necessary proposals to their customers as well.

#### Kawasaki

The concept of upstream and downstream exists even within chemical complexes where our individual plants are located. A chemical complex is considered to be part of the community and often also contains the plants

# Ms. Ayako Sonoda

(Facilitator)

President, Cre-en Inc. Graduated from the Department of Sociology, Faculty of Letters, Konan University. Worked for an advertising agency and Recruit Eizo Co., Ltd. before establishing Cre-en Inc. in 1988. Since then, Ms. Sonoda has provided CSR consulting service and planned and produced CSR reports for approximately 450 companies. She is also currently chief executive of Sustainability Forum Japan; director of Social Investment Forum Japan (SIF-Japan); and an executive committee member of the Social innovator Koshien Committee of 300.



of our peer companies. We believe that we first need to make sure that sufficient consideration is being paid to the environment and to society by our own plants, and then try to involve all those around us as well as the national and local governments in order to make harmonized efforts.

#### Kubo

As a matter of fact, in Yokkaichi City where our main plant is located, we are collaborating with other companies to call on the local government to cooperate. In the past, Yokkaichi City had problems with pollution; however, we have begun to discuss how we and other companies in the neighborhood can collaborate with each other to create a city that can coexist with nature.

#### Hirano

In terms of relationships with suppliers, JSR's procurement staff not only checks on the situation of tier 1 suppliers, but also tier 2 suppliers as a matter of course. We began this practice around 2000, at which time an American semiconductor manufacturer, after conducting an audit prior to transactions, pointed out that we had covered only some but not all of our tier 2 suppliers. It was a culture shock for us at that time, but this experience is still helping us even now.

#### Dr. Adachi

Regarding biodiversity, JSR has taken part in the Japan Business Initiative for Biodiversity (JBIB) starting four years ago. Except for JSR, no other chemical or material manufacturers showed interest in our activities at such an early stage and actually took concrete actions. JSR is aware of what they are expected to do and have tried to change accordingly. My impression about JSR, which I formed while working together with the company, is that they envision future needs and do whatever is necessary to meet those needs in a flexible manner. Calling on the local government for cooperation, which Mr. Kubo mentioned, is one such example. I hope JSR will continue expanding activities such as this. I also want JSR to communicate its activities to society at large so that it can play a leading role.

# Realizing true innovation together with internal and external stakeholders

#### Ms. Sonoda

The JSR Group has adopted "Materials Innovation" as its Corporate Mission. To realize innovation, it is important to possess the novel conception that turns a negative impact into a positive one or a positive impact into an even more positive one. The driving force for this kind of conception is employees, and therefore, their capacity building is crucial. How do you address this issue at the JSR Group?

#### Shimizu

In my view, Materials Innovation has two aspects: realizing innovation of the materials themselves and bringing innovation to the world through our innovative materials. It is important that all employees, including researchers and marketers, have a vision of how the world should be. Their vision should not be one of complacency, nor should it be one that only satisfies our direct customers. Employees must look outward into their surroundings and need to be sensitive in identifying upcoming trends in society.

#### Dr. Yasui

It seems to me that, especially in Japan, innovation just means creating something good that exceeds consumer expectations. But innovation should not only be like that, and in my opinion, we need a kind of "soft backcasting." We need to understand the current status of society and project how we think it will change in order to get a picture of how it will be in the future. From this picture we can then break down our future needs. During this process, it is important that analyses be based on a global perspective rather than only from a domestic perspective in order to grasp the overall trend of thought from people



Koichi Kawasaki Managing Officer Safety and Environmental Affairs



Hayato Hirano

around the world, as well as roughly how many people think that way and what they need. In short, looking at things from a broad, panoramic perspective is indispensable.

#### Hirano

This may sound a little harsh, but I feel Japan is risky due to its richness. Although the world is being confronted with various issues such as over-population and environmental problems, Japan is so comfortable that people in the country don't even notice these problems. In the accounting and financial division that I'm in charge of, the staff are given an opportunity to work abroad in rotation. This is just a small practice conducted in our division, but we try to send employees abroad as much as possible anyway.

#### Kubo

I think that kind of practice is important because it allows young employees to recognize the peculiarity of Japan, where everything is so convenient that you can live with the utmost ease.

#### Ms. Sonoda

When the JSR Group's corporate sttitude as talked about here becomes more visible, investors' evaluation of the Group will change.

#### Dr. Adachi

Socially responsible investment (SRI) is still considered to be a special form of investment in Japan, but it is already a common practice in Europe, where investors integrate environmental, social, and corporate governance (ESG) risk factors into investment decision-making as a matter of course. Even when the current financial performance is good, companies with ESG risks are evaluated as not suitable for long-term investment. In other words, ESG is used as an initial screening criterion for investment before a final decision is made based on financial performance.

#### Shimizu

I feel that it may be wrong to only emphasize ESG. What we need to do first is to carry out our primary business properly, and while doing so, we make sure that the concept of ESG constitutes a natural part of our business—this is what I think is more desirable. The ideal situation is that ESG factors are reflected in the design of our systems and organization as well as in employee education as a matter of course.

#### Pursuing a clear vision of how our business should be and turning it into an engine to drive our daily operations

#### Ms. Sonoda

I'd like each of you to wrap up today's discussion.



Takao Shimizu Officer Corporate Planning



Tatsuya Kubo General Manager CSR Department

#### Dr. Adachi

As mentioned earlier, it is often the case that in Japan, innovation refers to only a tiny improvement. But real innovation must be something that is more dramatic and can shake the very foundation of things. In my opinion, the material industry plays a key role in the creation of this innovation. Material technology is essential for the development of functions and products that elicit amazement from consumers. In other words, real innovation is born from materials. In this sense, my expectations are high for the JSR Group. I also like the Group's practice of giving many employees an opportunity to work abroad because I think this will help promote new creation. Employees' familiarity with the everyday lives of people in various countries will become a source of innovation that may change people's lives around the world.

#### Dr. Yasui

In my view, the future of Japan will be bleak if nothing changes. The main reason for this is due to the local-mindedness of Japanese people. It seems to me that Japanese people feel comfortable in staving close together in a small area. This can also be said of companies. Not many Japanese companies can confidently assert that they are doing the right thing and are proud of themselves. To make this assertion, companies need to look at things from a global and long-term perspective. High-spirited company operators who are determined to lead into the future with this perspective are what Japan currently needs most. In terms of JSR, President Koshiba has a clear philosophy and displays strong leadership. I'm looking to his individuality to bring an even brighter future to the company and to Japan. We live and do business on this Earth, and this cannot be achieved without consuming the Earth's resources. But even with this reality, I hope JSR will become a company that can assure us that they are doing business in the best way imaginable.

#### Shimizu

There are traditional issues such as climate change and biodiversity, and there are new movements such as the "shale gas revolution," which we need to pay attention to. I have acknowledged once again the need to reflect on these various issues and take a longer-term perspective when thinking about business. I also feel strongly about the importance of sharpening the sensitivity of each employee when seeking to incorporate various ideas into the organization as well as the importance of maintaining the organization's sensitivity as a whole, which doesn't change even when employees are replaced.





#### Kawasaki

People are so busy with daily operations that they tend to focus only on immediate profit and the current year's goals. Today's discussion was very suggestive regarding how we should look at things from a long-term perspective amid an ever-changing circumstnces. In addition to reflecting what we discussed in our business, I feel we also should share it with employees because it may lead to enhancing their awareness and motivation. I also realize the need to take a different perspective apart from the conventional one to come up with new realizations.

#### Hirano

I'm rather optimistic. It is true that we are facing many issues such as climate change, energy shortage, and procurement of raw materials. But humanity has overcome many difficult issues in its history. In the case of the JSR Group, we have accumulated a great deal of expertise and knowhow for solving various problems. We have a good leader as well. The issue for the future is to accelerate our activities. Once again, I feel that it is important to be proactive in taking action.

#### Kubo

This kind of dialogue was the first attempt regarding the JSR Group's CSR initiatives. In order to promote CSR, it is important for us to engage in dialogue with society and reflect the results in the actions we implement. Today's dialogue went beyond mere generalities and led to a discussion from a broad perspective. It was very productive, offering many suggestions. I also was able to understand that society's expectations for us are high. While it may be difficult to take on these issues all at once, we aim to solve them one by one to become an even better company. Thank you so much.

#### Message from Ms. Sonoda, the facilitator of the meeting

The JSR Group's CSR activities are one step ahead of those of other Japanese companies. If these activities are communicated to society more vigorously, the Group's standing will be boosted, which will lead to further dissemination of these CSR practices to the Group as a result of the boomerang effect. I'm expecting the Group to become the best CSR model among global companies.

The full text of this dialogue is available in the CSR Report (online version). web CSR Report 2013 > Feature Article 2

# The JSR Group's Essential Elements and CSR

To create a corporate culture in which sustainable growth is achieved consistently regardless of changes in personnel or organizational form, and to ensure that such a culture permeates across the JSR Group, we have established our Essential Elements and have been promoting them to be shared among the employees within the Group as common values so that each employee can act with responsibility and confidence. The Essential Elements consists of the Corporate Mission, Management Policies, and Course of Action.

# Corporate Mission Materials Innovation

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

Our value is not limited to "materials" but includes the components that capitalize on the strengths of the materials themselves. We will research, create and introduce high quality, highly functional chemistries, materials and technologies to the markets we serve. Value will be created throughout all corporate activities across the JSR Group including manufacturing, sales, research and development, procurement, logistics, planning and administration. We deliver exceptional materials that enhance people's lives while refusing to compromise on our social and environmental responsibilities.

# Management Policies JSR's Fundamental Pillars of Management

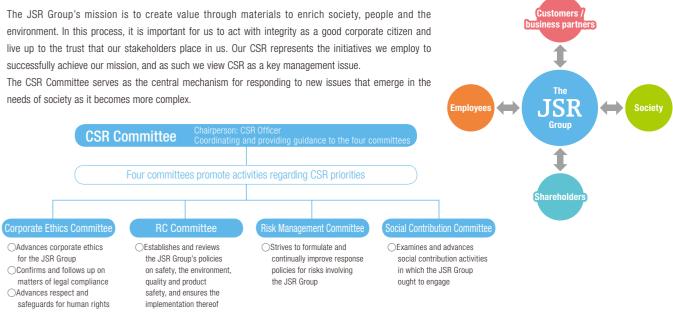
Continuous Creation of Businesses	As society evolves, so does the demand for specialized materials and advanced products. JSR continuously evolves to anticipate and respond to changing marketing needs and, in doing so, achieves dynamic growth.
Enhancement of Corporate Culture	As society evolves, so will 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	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.
Monogoment Deligioo	De ser en cilcilite de Oran Oteles haddane
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

<b>Responsibility to Society</b> All members of the JSR Group will honor our responsibility to both the local and global communities through:	<ul> <li>Responsible and respectful business practices (Responsible Care) that considers the environment and safety</li> <li>Support for environmental conservation by providing eco-friendly products</li> <li>Reduction of our environmental impact throughout the entire product lifecycle</li> <li>Active contribution to conserving biodiversity throughout its business activities and the entire product lifecycle</li> </ul>
Responsibility to Shareholders The JSR Group will maintain its responsibility to its shareholders by:	<ul> <li>Aiming to increase corporate value by creating business opportunities through materials</li> <li>Constantly enhancing its management efficiencies</li> <li>Olnspiring trust by being highly transparent and conducting sound corporate management practices</li> </ul>

### Course of Action "The 4Cs"

Challenge Communication	All employees of the 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. 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 of sharing value and achieving common goals, especially in the face of growth and diversification.	C C C C MAILENGE COMMUNICATION COLLABORATION CULTIVATION
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 by conventional ideas.	
Cultivation	All employees will cultivate an environment that supports bi-directional communication between managers and a opportunities for them to develop together as individuals and as members of productive, supportive teams.	subordinates, and provides

# **CSR Management Framework**



# Major Activities Promoted in FY 2013

### Activities to ensure penetration of Essential Elements across the Group

- Dialogue with the President and other management (29 meetings with 422 participants in total) - Penetration level survey to capture quantitative data regarding activities conducted during the previous fiscal year
- Sharing of the results of the previous year's penetration level survey and identified issues
- Training for recruitment staff and interviewers (141 trainees in total)
- Education on the Corporate Mission for each employee level (168 trainees in total) - Explanation and discussion meeting at each workplace organized by Penetration Project members
- Improvement of the Management by Objective Card
- (The 4Cs goals were added to the performance goals.)
- Appointment of a penetration activity representative in each Group company - Discussion with penetration activity representatives from each Group company
- (group workshop and dialogue with the President)

#### Enhancement of compliance

- The Compliance Handbook, which summarizes important points about laws and regulations that we need to observe, was prepared and distributed to all employees in Japan.
- A corporate ethics awareness survey was conducted both in Japan and overseas to grasp the current situation regarding employee awareness of corporate ethics and identify issues that remain unaddressed. These issues are being addressed under a follow-up plan.

#### Analysis based on ISO 26000

Analysis of the JSR Group's CSR activities was conducted based on ISO 26000 to understand current progress and identify remaining issues. The results will be used to plan our future activities.

### Participation in the **United Nations Global Compact**

In April 2009, the JSR Group became a participant in the United Nations Global Compact. Amid increasing pressure to engage in corporate social responsibility, businesses operating at a global level need to make a greater commitment to human rights, labor, the environment, and anti-corruption, as expressed in the 10 principles of the Global Compact. We consider our participation in the Global Compact to be a proclamation of our dedication to acting responsibly in the international community. and will strive to work even harder to fulfill our corporate social responsibility.



Dialogue with the President

Messages from employees who attended the management dialogue meeting

- The explanation was simple and easy to understand, so the impression of the mission as being difficult was dispelled. I was able to understand the idea behind the mission and why it is necessary and important.
- I realized the link between my work and the mission and felt proud and responsible for implementing the mission

Compliance Handbook

Compliance tandbook



#### The 10 Principles of the United Nations Global Compact

1 Businesses should support and respect the protection of internationally proclaimed human rights

2 Businesses should 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.

Businesses should uphold the elimination of all forms of forced and compulsory labour. Businesses should uphold the effective abolition of child labour.

6 Businesses should uphold the elimination of discrimination in respect of employment and occupation. Businesses should support a precautionary approach to environmental challenges.

- 8 Businesses should undertake initiatives to promote greater environmental responsibility
- 9 Businesses should encourage the development and diffusion of environmentally friendly technologies.
- Dusinesses should work against corruption in all its forms, including extortion and bribery.



# **Commitments by Global Group Companies**

The JSR Group addresses issues and needs that vary in each country and region, while sharing the common Essential Elements and mid-term business plan.

In this section, each Group company leader will describe their respective business environment and outline the social responsibilities they are required to fulfill.

### JSR BST Elastomer Co., Ltd.



Managing Director

The Map Ta Phut industrial zone in Ravong Province. Thailand, where we are currently constructing a plant, is a center of the chemical industry and attracts great attention to the environment. An accident involving an explosion that occurred near our site in May 2012 resulted in even stricter safety requirements in the industrial zone, and we need to ensure that we take all possible safety measures as well as Takatoshi Nagatomo communicate such measures to the community. In addition to holding information sessions to explain our activities to the residents, we are actively making commitments to the community by participating in local events and donating to

JSR Micro Korea Co., Ltd.



nearby schools, among other courses of action

In Korea, corporations have highly public consciences and contribute to society in valous fields in response to expectations. As society's interest in safety and health and quality control mounts, we are working to further strengthen our compliance, such as by meeting GHS\*1 requirements, preparing MSDS\*2, checking the safety of the chemicals we use, and registering new chemical substances in accordance with applicable laws and regulations. As we intend to export more products from Korea, we will develop a system to ensure compliance with chemical substance control schemes and trade rules of countries we export to.

Techno Polymer Hong Kong Co., Ltd. Techno Polymer Guangzhou Co., Ltd.



Managing Director

Nobuo Kawahashi

President

China is progressing from placing priority on economic and national development to the stage where companies can discuss what they should do to fulfill their social esponsibility. Although we are a small company, we are cussing with our employees in study meetings and ther occasions what sustainable CSR activities we can carry out as a local subsidiary of the JSR Group. As a first step, we have started activities we can do every day, such as recycling cardboard boxes and newspapers.

Although Thailand is undergoing rapid economic

development, the country is still confronted with many

unaddressed environmental and social problems and

# Techno Polymer (Thailand) Co., Ltd.



companies are expected to play a key role to solve these problems. Because Thailand faces risks such as demonstrations and floods, we are also focusing on risk management. We will introduce training that encourages each employee to think about what they can do for CSR Shotaro Uehara on their own initiative, so that we will grow into a company Managing Director that encourages employees to actively become involved in carrying out CSR activities and be proud of those efforts.

### Elastomix (Thailand) Co., Ltd.



In Thailand, attention is being paid to economic development and environmental protection issues (environmental problems in industrial zones and infrastructure development in particular), and improvement in the quality of life is being sought. Although people's awareness of CSR remains low, we have already started engaging in dialogue meetings with local residents and working on environmental measures to save energy, increase recycling, and for other purposes. We will put more effort into enhancing employee motivation and providing periodical training to ensure employees' understanding of corporate ethics.

### JSR Micro Taiwan Co., Ltd.



Since Taiwan relies on imports for more than 99% of its energy, energy conservation and the realization of a low carbon economy are urgent issues. In this situation, we are therefore actively adopting energy-saving measures, primarily for our plant. In "green areas" throughout our plant, we also grow plants that are indigenous to Taiwan in an attempt to maintain harmony with the local ecosystem, and as a result we were once again declared a winner of the local industrial zone greening contest this year following our victory last year. We will continue promoting CSR activities by paying attention to the local situation while working hard to achieve the JSR Group's common CSR goals.

Techno Polymer (Shanghai) Co., Ltd.



Masaru Hirata Managing Director

China is being evaluated critically by the world community on the environmental front, and for this reason, the country's import control requirements for hazardous chemical substances are becoming stricter each year. Interest in environmental protection and safety is rising even on an individual level. To meet environmental regulations and the need to improve work environments, we are expanding sales of materials that are expected to reduce the man-hours of our customers while ensuring legal compliance and fair business practice, maintaining employment, and working on human resource development

### Shanghai Rainbow Color Plastics Co., Ltd.



As with other areas in China, Shanghai is facing the issue of how it can realize both economic development and environmental protection. Interest in PM 2.5 pollutants and other environmental problems as well as their solutions is increasing rapidly. We are vigorously promoting resource and energy conservation during the production phase

Katsuro Omura General Manager

\*1 GHS (Globally Harmonized System of Classification and Labeling of Chemicals) An internationally agreed-upon system of chemical classification, labeling, and safety data sheet (SDS)

requirements \*2 MSDS (Material Safety Data Sheet)

A document that contains chemical substance safety information, which is provided when chemicals are shipped to another company. MSDS is a designation used in Korea. It is also called a "safety data sheet" or "SDS" under the international standard.

### JSR Micro N.V.



Concern over the environment and the safety of customers and employees is rising in the EU, and people are paying much attention to the impact of chemicals on the environment as well as to technology for protecting the safety and health of employees. We are considering to the greatest possible extent the environment and occupational safety, while encouraging open communication through active dialogue with employees. EU regulations are complicated, but we ensure that we take appropriate measures at all times by monitoring. the impact of our activities on the environment and occupational safety

#### Techno Polymer America, Inc.



Atsushi Ishii

President

I feel that contributing to sustainability is one of the important attributes of great companies in the United States. Environmental issues were a major theme in NPE 2012 in particular, an international plastics exhibition, as well. Corporate ethics is also being taken very seriously in this country, so we are very careful when engaging in business activities. We will continue developing environment-friendly materials that meet the needs of Western companies even better by making the most of the JSR Group's technological prowess.

# JSR (Shanghai) Co., Ltd.



Chariman

In China, people's awareness of environmental issues is increasing year by year, and as a company that handles chemicals, we have to ensure full compliance with laws and regulations while working to expand our business-our basic yet very important policy. It is also becoming important to develop national staff along with the expansion of business, and we will manage the company in such a way as to encourage each employee to challenge themselves to actively engage in difficult tasks as a member of the JSR Group.

#### Elastomix (Foshan) Co., Ltd.



President

Laws and regulations regarding safety and the environment are being enforced, and safety management guidance provided to companies by the authorities is becoming more and more strict. We have been working hard to maintain and improve safety and the environment since early on and will continue with these efforts. Since our responsibility to our employees is also important we are working to establish employee benefits, conduct employee surveys, and are implementing other plans to secure and develop human resources.

#### **JSR Micro**, Inc.



Phyllis Moracco HR Director

In California, GHG is a hot topic, as the cap-and-trade system puts pressure on companies to implement control measures to help reduce emissions. Intel's Green Chemistry Benchmarking is attracting much attention and we are providing information on a chemical screening, selection and monitoring system. We are also promoting joint CSR efforts with our suppliers, asking our supply chain partners, investors and other external stakeholders to join in the effort, as this is what our customers expect us to do. Since biodiversity is an important topic for the future, we will be working closely with other JSR groups to implement some of these important projects.

#### **JSR Trading, Inc.**



Ken Tsutsui President

Even in the United States, consumers are shifting to fuel-efficient compact cars due to skyrocketing gas prices. We are contributing to improvement of the environment by expanding sales of JSR S-SBR, a material used for fuel-efficient tires. We are also attaching importance to compliance with trade controls and regulations as well as risk management for labor and other issues, and regularly monitor the status. We are also expanding transactions with local companies and employing national staff to become rooted locally.

#### J & W Beijing Biotech Co., Ltd.



Kenji Yasuda President

I feel that in China, public awareness of environmental problems such as PM 2.5 pollutants, which caused a great stir this year during winter, and the desire for a better environment and better medical care are increasing day by day. Our diagnostic reagent intermediate products help to develop a better medical environment, and it can be said that our business activities themselves are CSR activities. By taking advantage of our status as a joint venture company formed with a Chinese company, we plan various activities to actively mingle with the local community, such as traveling together with employees and their families

#### JSR Trading (Shanghai) Co., Ltd.



Keiya Oyanagi President

People's awareness of environmental protection is increasing rapidly, mainly in large cities. PM 2.5 pollutants, enforcement of a more strict food management law, and other issues have become hot topics, and we are working hard to ensure compliance with Chinese trade practice regulations while strengthening our lineup of environmentally friendly products. We will make greater efforts to flexibly disseminate information on the JSR Group's environmental activities and contributions to local communities.

#### FY 2013 Activity Highlights

# **Responsibility to Our Stakeholders**

The JSR Group engages in a variety of activities to fulfill its responsibility to stakeholders as specified in the Management Policies.

This section introduces some of the major activities conducted in FY 2013.

# **Customers / Business Partners**

#### Successive awarding of Intel's Supplier Continuous Quality Improvement (SCQI) Award

We received the Supplier Continuous Quality Improvement (SCQI) Award from Intel Corporation. a world-class semiconductor manufacturer based in California, the United States. The SCQI Award is Intel's most prestigious award given to suppliers. We had previously received the award

for three consecutive years, with the award in FY 2013 marking our fourth overall, in recognition of the excellent quality and performance of advanced lithography solutions and CMP consumables we supply, as well as of our commitment to CSR.

#### Strengthening of our business continuity management (BCM)

We are developing an anti-disaster system with priority placed on business continuity management (BCM) based on lessons learned from the Great East Japan Earthquake in 2011. In FY 2013, we formulated a BCM plan based on a scenario in which the operation of the Yokkaichi Plant was suspended for a certain period of time. Initial response training for business continuity

was also conducted so that employees could experience and act properly based on a specified flow, from initial response immediately after a large-scale disaster occurs to activation of the BCM plan.

We will gradually introduce the plan to other plants and Group companies to strengthen BCM throughout the Group.



SCQI Award ceremony (photographed by Dan Agulian)

#### Quality performance audit

As a manufacturer, we are responsible for meeting customer requirements regarding guality, costs, and keeping a steady supply. To fulfill these responsibilities, in FY 2013 we introduced quality performance audits in addition to the existing quality audits. We additionally added the Six Sigma technique to the QC technique and promoted them as the two main drives of our quality improvement activities. In February 2013, the first quality performance audit was conducted at our three plants under the leadership of the President himself.

Opening of the JSR Roppongi Club,

a training center for the Head Office

The JSR Roppongi Club was opened in January 2013 as the Head Office's center for

education, training, and internal and external

communication. Since there are already training

facilities at each of our plants that provide

technological training and promote human

resource development, the opening of the

Roppongi Club means that we now have training

facilities for the Head Office as well as for each

plant. These facilities are expected to support

us to achieve one Course of Action of The 4Cs:

# **Employees**

#### Cross-cultural Communication Workshop

The number of non-Japanese employees in the JSR Group is increasing, and presently accounts for about 20% of the total. The Cross-cultural Communication Workshop allows employees to experience behavior that promotes diversity and inclusion, as well as learn differences in values through case studies, role playing, and discussions. To date, the workshop has covered China, the United States, India, and Korea.



A scene from the workshop



Ms. Yumiko Suzuki Workshop facilitator

Inclusion means respecting the values and listening to the opinions and ideas of others. To achieve the objective of diversity and increase the company's competitive advantage, it is essential to create a culture of inclusion where employees can express their ideas freely at all times regardless of nationality, gender, position, and other differences.



- I noticed for the first time that good work performance and personal relationships can be maintained only when inclusion is implemented.
- I thought communication with different cultures would be too difficult. But I now understand that such communication is often directly linked to our daily work.



Communication

# Society

#### The use of company sites to promote biodiversity

We are currently evaluating biodiversity and improving the environment in green spaces at each company site based on the Guidelines for Sustainable Business Sites developed by Japan Business Initiative for Biodiversity (JBIB). In FY 2013, we formulated a plan to improve the environment at the Yokkaichi Plant and Tsukuba Research Laboratories. For the Yokkaichi Plant, university researchers, experts, and our employees cooperated to conduct an investigation on the habitats of living species in and around the plant to collect basic information necessary for planning future activities. The results revealed that the plant is home to many living species. including birds, insects, and medaka rice fish

(Oryzias latipes). The total number of organisms found was, in fact, above our expectations. Similar investigations will continue to be regularly implemented by employees at each company site. In addition, the National Biodiversity Strategy of Japan 2012-2020, of which we were involved in the development process and which was approved by the cabinet in September 2012, refers to JBIB's Tools for Sustainable Business Sites as a company-owned land management technique. Through this and other activities, we will pursue biodiversity not just for our company, but also for industrial circles and society at large.

#### Upgrading the risk management system

The JSR Group began identifying, assessing, and planning countermeasures against various risks, including explosions, fires, large-scale earthquakes, and pandemics, at all our divisions and Group companies each year from FY 2010. Particularly important risks are classified as major company-wide risks, and are monitored by the Risk Management Committee and the CSR Committee to ensure that such risks are managed properly. In FY 2013, an external expert was invited to review this risk management system for upgrading.

#### Activities for the development and education of future generations

high schools in these areas.

# **Shareholders**

#### **Basic approach**

Our most important challenge is to strive to strengthen our R&D from a long-term perspective, increase our competitiveness by developing new businesses, and maintain the long-term growth of our business performance. We are also working hard to enhance corporate governance with the aim of developing a trusted and attractive corporate culture.

Questions on the transparency and soundness of management are being raised, and the monitoring and overseeing function of management is being strengthened through the appointment of independent outside directors and auditors.

#### We make utmost efforts to ensure that our management situation and corporate policies are communicated to shareholders and investors promptly and accurately through proper IR activities. We also make sure through a variety of measures that shareholders can fully exercise their voting rights at annual general shareholders' meetings. The measures include early notification and holding of shareholders' meetings and adoption of online execution of voting rights. By conducting briefings on our business results after each quarter, organizing seminars for



Biodiversity investigation at the Yokkaichi Plant

Mr. Tsubasa lwabuchi Tohoku University Ecosy Adaptability Global COE Fellow as of this writi



I was amazed by the fact that there were many organisms living in such an isolated environment at the plant. By planting fruit trees and improving the stream's shores, the site will be more suitable for biodiversity.

(Currently Assistant Professor at the Faculty of Life Sciences, Toyo University)

#### •Visiting lectures of science

With cooperation of the boards of education from areas where our Group's plants are located, we periodically hold visiting lectures of science at elementary and junior

In FY 2013, we implemented this project in Yokkaichi City; Tsukuba City, in which Tsukuba Research Laboratories is located: and Kamisu City, in which the Kashima Plant operates, in the hope that the project would help boost childrens' love of science

In addition to accepting Japanese university students as interns, we began accepting foreign interns from FY 2013.

Acceptance of interns from abroad



An intern from Washington State the United States

#### Communications with shareholders and investors

institutional investors and analysts and technical seminars "JSR Tech Seminars", as well as through

other means, we maintain extensive interactive communication with our shareholders and investors.



JSR Tech Seminar

# The JSR Group has identified long-term actions in various categories and set targets for each year.

# **Targets and Results**

Major actions targets and results are described below.

A	ction	FY 2013 Target	FY 2013 Performance		Assessme	nt Target for FY 2014 Onward	Implementing Division
CSR Man	agement	Promote activities of the four committees	<ul> <li>Promoted the activities of the four committees (Corporate Ethics Committee, Responsible Care Committee, Risk Management Committee, and Social Contribution Committee) as planned</li> </ul>	CSR workshop (January 2013)	0	Continuation of current efforts	
	Promote the relevant activities and raise the awareness of the activities across the Group	Raise awareness of the activities across the Group	<ul> <li>Held the CSR Report Presentation across all Group divisions, and promoted information sharing via internal newsletters and by intranet, including messages from senior management, to raise employee awareness of CSR. Results were confirmed through various surveys.</li> <li>Held CSR workshops for employee leaders of Group companies</li> <li>Started activities to raise employee awareness at overseas sites</li> </ul>	CSR workshops were organized for employee leaders of Group companies. Following a lecture given by an expert, the participants developed a vision of what they should become and held group	0	<ul> <li>Continue to disseminate messages from CSR Department</li> <li>Continue to implement measures to raise the awareness within the company by holding workshops and other events</li> <li>Expand activities to overseas sites</li> </ul>	 CSR Department
	Understand social trends	Utilize the UN Global Compact (GC) network, etc.	<ul> <li>Used the GC network and reflected its activities in our corporate policies</li> <li>Supported activities of Global Compact Japan Network (GC-JN) as a member of the Working Group Steering Committee, Working Group Coordinator of In-house Awareness of UNGC Working Group, and as a member of the Human Rights Working Group</li> </ul>	discussions on what they could do as a company and as a global citizen.	0	Continuation of current efforts	_
		Conduct a survey on awareness of corporate ethics	Implemented a survey on employee awareness of corporate ethics and followed it up at business sites both in Japan and overseas		0	Continuation of current efforts	
	Reinforce corporate ethics	Ensure that employees are familiar with the Principles of Corporate Ethics	Partially revised the Principles of Corporate Ethics to reflect social trends	Issuance of a CSR report by JSR Micro, Inc. (April 2013)	0	<ul> <li>Ensure that all employees are aware of how the Principles of Corporate Ethics was revised</li> <li>Introduce a supplier hotline</li> </ul>	Corporate Ethics
	and legal compliance	Ensure legal compliance	<ul> <li>Periodically confirmed the status of legal compliance and conducted improvement activities for the requirements across the JSR Group, including our overseas companies</li> <li>Held lectures on legal issues periodically and created the Compliance Handbook to help employees across the Group gain knowledge of relevant laws and regulations</li> </ul>	JSR Micro, Inc., located in the United States, issued its own CSR report for the first time among our Group companies. This CSR report is expected to lay the foundation for the company's future	0	<ul> <li>Continuation of current efforts</li> <li>Improve the legal compliance system</li> </ul>	Committee
		Review and improve the risk management system	Reviewed and partially improved the company-wide risk management system	sustainability activities.	0	Implement measures toward improvement and ensure that they continue to be implemented across the Group	
	Reinforce risk management	Periodically operate the company- wide risk management system	<ul> <li>Implemented company-wide risk management activities across the Group, including overseas sites, and identified 14 major company-wide risks</li> </ul>	Initial response training for business continuity (December 2012)	0	Continuation of current efforts	Risk Management Committee
ISO 26000 Organizational governan	ICE	Crisis management	<ul> <li>Embarked on projects to develop BCM while maintaining the existing crisis management system that focuses on initial response</li> <li>Implemented training that allowed employees to undergo simulated experiences, from the occurrence of a disaster to activation of BCM</li> </ul>	We carried out a simulation training exercise that assumed a scenario in which a large earthquake had occurred in the Tonankai region and that a tsunami	0	<ul> <li>Develop BCM rules</li> <li>Continue to implement crisis management training</li> </ul>	
Customers	Continue to improve product quality	Implement and strengthen PLP* <sup>1</sup> activities	Implemented and promoted activities to improve product quality and evaluation techniques to prevent quality accidents more effectively	Warning had been issued, as part of our efforts for continuous improvement of BCM. The disaster response staff at the Head Office and the Yokkaichi Plant learned what decisions needed to be	0	Improve quality control across entire supply chains, from raw material procurement through distribution – not just from design to manufacturing	
Business	Provide product environmental and safety information	Provide customers with environmental and safety information	<ul> <li>Used SDS electronic management system to provide customers with appropriate SDS*<sup>2</sup> for prototypes and products</li> </ul>	made to deal with the succession of problems that occurred.	0	Continuation of current efforts	
Partners Ensure compliance with G		Ensure compliance with GHS* <sup>3</sup>	Made progress in labelling products shipped in Japan in accordance with the Industrial Safety and Health Law, and performed GHS of SDS as planned	Exchanging opinions with suppliers (January 2013) As the first step in our efforts to realize	0	Continue to implement labelling and submit SDSs based on GHS and in accordance with laws and regulations. Observe GHS for exported products as well, as required by the laws and regulations of each country	Responsible Care Committee
	Improve management of chemical substances	Ensure compliance with EU's REACH <sup>+4</sup> and CLP <sup>+5</sup>	Communicated information necessary for the compliance with REACH and confirmed the registration status of materials for the compliance with REACH; affixed CLP labels to products exported to Europe	biodiversity conservation throughout the supply chain, we conducted a survey on	0	Continuation of current efforts	
ISO 26000 The environment		Implement green procurement*6	Continued to utilize the JAMP-GP*7	what initiatives each supplier is taking toward biodiversity conservation. We	0	<ul> <li>Conduct activities that focus on cooperation within the supply chain</li> </ul>	
Fair operating practices Consumer issues	CSR procurement*8	Improve CSR procurement	<ul> <li>Implemented CSR procurement, covering 98% of raw material suppliers on a purchase value basis (95% last fiscal year), and conducted a survey on biodiversity conservation targeted at petrochemical business suppliers</li> </ul>	visited some of our major suppliers to exchange opinions.	0	Continue, and improve as necessary, the current activities	Procurement Departments I and
Employee	Promote employee	Implement measures to increase understanding	<ul> <li>Implemented education programs according to position</li> <li>Announced how much overtime work was generated (every month)</li> </ul>	Sharing information on communication activities (July 2012) To promote communication, one Course	0	Continuation of current efforts	
	work-life management	Implement measures to increase employees' awareness of the program	Held an elderly-nursing care seminar	of Action of The 4Cs, among different divisions and across the Group, we	0		
		Cultivate the diversity as our corporate culture, take concrete measures, and achieve quantitative targets	<ul> <li>Percentage of women among our employees hired in April 2013 – engineering positions for college graduates: 18%; and clerical positions for college graduates: 50% Percentage of managerial positions filled by women as of April 2013: 3.9%</li> <li>Promoted communication activities at each business site</li> </ul>	arrange social gatherings at each business site of the JSR Group. Group company employees, temporary staff, and many others have participated in	0	Continuation of current efforts	<ul> <li>Human Resource</li> <li>Development</li> <li>Department</li> </ul>
Labor practices Human rights	Ensure diversity in the workplace	Ensure diversity of recruitment	<ul> <li>Ratio of employees with disabilities (JSR): 1.96% (1.84% last fiscal year)</li> <li>Number of non-Japanese employees (JSR): 19 (14 last fiscal year)</li> <li>Held a workshop to learn cross-cultural communication</li> </ul>	these social gatherings to deepen their communications with each other. In July 2012, a newsletter introducing best communication practices implemented within the Group was issued to all employees.	0	<ul> <li>Ensure diversity of recruitment</li> <li>Implement the workshop at other sites</li> </ul>	

\*1 PLP (Product Liability Prevention): activities designed to prevent the manufacture of defective products

\*2 SDS (Safety Data Sheet): a form that is attached to chemical substances when they are shipped to other businesses to provide safety information

\*3 GHS (Globally Harmonized System of Classification and Labeling of Chemicals): a system aimed at creating a global standard for chemical classifications, labeling, and SDS submission \*4 REACH (Registration, Evaluation, Authorization and Restriction of Chemicals): a European Union regulation regulation regulation of safety testing data for all chemicals that are manufactured or imported in volumes of 1 ton or more annually

\*5 CLP (Classification, Labeling and Packaging of substances and mixtures): a European Union regulation regulation regulation, labeling and packaging of hazards of chemical substances and mixtures based on GHS \*6 Green Procurement: measures aimed at procuring materials from suppliers who implement comprehensive management of substances that have the potential to harm human health \*7 JAMP-GP (Joint Article Management Promotion-Consortium Global Portal): global portal site for the Joint Article Management Promotion-Consortium, with the functions to support its member companies

to manage, disclose, and transmit information regarding chemical substances contained in products \*8 CSR Procurement: measures aimed at procuring materials from suppliers who are environmentally compliant and strive to be socially responsible in their corporate behavior, when hiring employees, etc.

Assessment  $\bigcirc$ : Better than planned  $\bigcirc$ : As planned  $\triangle$ : Improvement needed

Action		FY 2013 Target FY 2013 Performance			Assessment
Society	Develop products with consideration to the environment and safety	Use LCA <sup>+9</sup> in environmental impact reduction activities	<ul> <li>Implemented LCA of new products and major products (about 70 product groups in total) from their R&amp;D stage to calculate their expected CO<sub>2</sub> emissions during production</li> </ul>		0
RC	Eliminate accidents	Implement preliminary environmental and safety assessments	<ul> <li>Continued to implement preliminary environmental and safety assessments in accordance with safety and environmental manuals when installing new facilities or modifying existing ones and performing non-regular work</li> <li>Two fire-based accidents, which were required to be reported to the government under the Act on the Prevention of Disaster in Petroleum Industrial Complexes and Other Petroleum Facilities, occurred in FY 2013. Problems identified and other information were shared across the Group and countermeasures were taken.</li> </ul>	Environmental and safety audits for overseas Group companies The JSR Group ensures that environmental protection and safety measures are observed at its sites in Japan and overseas by periodically conducting environmental and safety audits. In FY 2013, an audit was performed at Elastomix	Δ
	and disasters	Introduce systematic measures to prepare for and respond to major earthquakes	<ul> <li>Continued efforts, among other actions taken, to eliminate hazardous areas and operations to prevent occupational health and safety accidents. In FY 2013, no accidents resulting in a worker absence occurred at JSR and its Group companies in Japan</li> <li>Implemented antiseismic reinforcement in anticipation of an earthquake with the epicenter directly below a populated area, and organized and promoted countermeasures in anticipation of a huge tsunami following an interpolate earthquake</li> </ul>	(Foshan) Co., Ltd., our Group company in Foshan, Guangdong, China, whose main business is refining and processing crude rubber.	0
		Maintain ISO 14001 and ISO 9001 certification	Passed audits to maintain ISO 14001 and ISO 9001 at three JSR plants	Introduction of "Safety Competency Evaluation System"	0
	Dovelop bighly trusted	Maintain certification under security- related laws and regulations	<ul> <li>Maintained certification under the High Pressure Gas Safety Act at three JSR plants</li> <li>Obtained permission for four-year consecutive operations of class-1 pressure vessels under the High Pressure Gas Safety Act at the Chiba Plant</li> </ul>	We introduced "Safety Competency Evaluation System", a self-diagnosis tool for the level of	0
	Develop highly-trusted business establishments	Audit environmental and safety performance of Group companies	Implemented environmental and safety audits at 22 sites of 13 Group companies in Japan and one site of one overseas Group company	safety competency developed by the Japan Society for Safety Engineering (JSSE). The system focuses on safety infrastructure (the	0
		Participate in Japan Safety Competency Center activities	<ul> <li>Joined activities of the Safety Enhancement Center, an independent evaluation organization established in April 2013 for the purpose of promoting the Safety Management Evaluation</li> <li>System within industrial circles</li> </ul>	technological aspect of safety) and safety culture (the human aspect of safety). The system will be tacted at the Yokkaichi Plant first before	0
		Conduct energy conservation measures and anti-global warming measures	Worked on further sophistication of energy-saving technologies and established a system that is expected to reduce total CO <sub>2</sub> emissions from three plants by 6% over FY 1991. CO <sub>2</sub> emissions in FY 2013 decreased by approx. 16,000 tons (2.2%) compared to FY 1991. The per-unit index was 63 in FY 2013 when FY 2000 = 100.	being introduced at other locations.	
		Reduce atmospheric release of VOC*11	Reduced VOC emissions by 76% compared to FY 2001 through the stable operation of RTOs* <sup>12</sup> installed at three JSR plants	Reduction of $CO_2$ emissions through creating combustible waste sludge	0
	Reduce environmental impact	Reduce the environmental impact	Industrial waste: "zero waste" goals have been achieved every year from FY 2004 to FY 2013 (seven tons of landfill waste per year), due to various measures taken at all our plants, such as those to limit the generation of industrial waste, sort waste thoroughly, and search for recyclers.	Sludge generated from the wastewater treatment facilities of the Yokkaichi Plant previously required a combustion support fuel (heavy oil) for incineration. In 2012, we	0
		of wastewater, industrial waste, and other impacts	<ul> <li>Satisfied the 6th Total Pollutant Load Control with respect to wastewater (COD, total nitrogen, total phosphorous)</li> <li>Continued efforts to realize stable wastewater treatment and improved water quality with a view to meeting the 7th Total Pollutant Load Control scheduled to be enforced in April 2014</li> <li>Completed all improvement work to meet the revised Water Pollution Control Act (Renovated JSR sites and relevant facilities of Group companies that failed to meet the revised act)</li> </ul>	Sludge dryer systemintroduced a sludge dryer system, which enables us to make sludge combustible without requiring any combustion support fuel. The system is expected to help us to reduce CO2 emissions by approx. 15,000 tons annually.	0
ISO 26000 The environment	)	Introduce measure to improve local environments	<ul> <li>Continued to reduce offensive odors by installing RTOs at three JSR plants</li> <li>Continued countermeasure to reduce noise and light by installing a ground flare*<sup>13</sup> at Yokkaichi Plant; there were no environmental complaints in FY 2013</li> </ul>	JSR Micro Taiwan Co., Ltd. (JMW) wins a greening contest prize for the second consecutive year	0
Community involvement and development	Secure the environment and safety in international businesses	Make cooperation for the International Center for Environmental Technology Transfer around the world	<ul> <li>Cooperated in the International Center for Environmental Technology Transfer (ICETT) and supported training of environment and safety engineers around the world</li> </ul>	JMW entered a greening contest organized by The Central Taiwan Science	0
Society Biodiversity cons	Promote activities based on the JSR Group's biodiversity policies Continue to support JBIB* <sup>14</sup> • Started to improve green spaces at the Yokkaichi Plant and Tsukuba Research Laboratories to make them a better habitat for biodiversity. Conducted Living Things Monitoring periodically at each site          • Started to incorporate conservation for biodiversity into the design of new sites          • Started to incorporate conservation for biodiversity into the design of new sites          • other with the surrounding ecosystem by selecting to support the surrounding ecosystem by selecting to the su		Administration Bureau (CTSP) and won the top prize for the second consecutive year. Since its establishment, the company has been working hard to maintain harmony with the surrounding ecosystem by selecting indigenous plants of Taiwan that fit the local subtropical climate and planting them in green areas.	O	
The environment			Continued to participate in JBIB working groups		
Society		Implement social contribution programs	Continued to provide Fun Lab Classes for elementary school students, visiting lectures of science for junior high school students, and private company training programs for teachers in collaboration with educational institutions, as well as participating in the TABLE FOR TWO program	Thermal barrier coating using SIFCLEAR™ applied to	0
Community ISO 26000	Implement social contribution activities	Support disaster-affected areas	Continued to support the improvement of the living environment at a disaster-affected area by applying thermal insulation paint containing our materials to temporary housing in the area	temporary housing on Oshima Island, Kesennuma City	0
Community involvement and development		Implement activities that will contribute to local communities	Implemented various activities at each plant area with the emphasis on communication with the local community, such as interactive events with local residents and cleanup activities. Continued to hold a local food fair in the cafeteria of Yokkaichi Plant	The JSR Group mobilized volunteer employees and organized activities to support people affected by the Great East Japan Earthquake on Oshima Island, Kesennuma City, Miyagi	0
Sharehold	lers	Share information through various media	Provided information regarding the Group in an easy-to-understand manner through the Investor Relations section of our website, Annual Reports, the "JSR Throughout Society" brochure, and other means	Prefecture. As part of these activities, a thermal barrier coating using our product SIFCLEAR™ was applied free of charge to	0
	Better communication with shareholders and investors	Promote interactive communication with shareholders and investors	<ul> <li>Held briefings on business results after each quarter, seminars for institutional investors and analysts, technical seminars, and plant tours</li> </ul>	temporary houses of affected people located on the island. The coating was added to a total of 88 houses in 2011 and 2012, and we have been working on an on-going basis	0
		Make general shareholders' meetings more attractive	Enclosed documents with useful information together with a convocation notice mailed to shareholders, introduced our products on the day of the general shareholders' meeting, and ensured that explanations of our businesses made during the meeting were informative and detailed	to help improve the living environment by reflecting feedback from the residents.	0

\*9 LCA (Life Cycle Assessment): a method of quantitatively analyzing and assessing a product's environmental impact in all lifecycle stages, including raw materials, manufacturing, use, and disposal \*10 LCI (Life Cycle Inventory): in LCA, the compilation of data on the flow of resources, energy, and environmental impacts of a product \*11 VOC (Volatile Organic Compounds): organic compounds that are highly volatile, which are a source of atmospheric pollution

\*12 RTO (Regenerative Thermal Oxidizer): a device that combusts VOCs and breaks them down into water and CO<sub>2</sub> to make emissions cleaner \*13 Ground flare: a device that combusts waste gases in a cylindrical furnace placed on the ground. Ground flares have a lower impact on the surrounding environment (create less noise, etc.) compared to conventional flare stacks. \*14 JBIB: Japan Business Initiative for Biodiversity

Target for FY 2014 Onward	Implementing Division
Continue investigation of the use of LCI* <sup>10</sup> data in activities to reduce environmental impact	
<ul> <li>Identify potential risks concerning existing facilities, materials and work, and continue countermeasures for them</li> </ul>	
Eliminate dangerous work practices and conditions, and encourage passing down of skills from experienced to inexperienced workers	
Implement measures in accordance with the mid-term business plan	
<ul> <li>Maintain and continue to operate ISO 14001 and ISO 9001</li> <li>Obtain ISO 14001 certification for the Tsukuba Research Laboratories</li> </ul>	
Renew certifications under safety laws and regulations	
<ul> <li>Continue current efforts</li> <li>Increase the frequency of audits at overseas sites</li> </ul>	
Continuation of current efforts	Responsible Care Committee
Continue energy-saving activities to achieve the target for reducing $\rm CO_2$ emissions	
<ul> <li>Promote activities to maintain the reduction of VOC emissions to achieve the FY 2016 target: a 75% reduction from the FY 2001 level</li> </ul>	
Continue to achieve "zero waste" goals	
Promote stable wastewater treatment and further reduce drainage load to meet the 7th Total Pollutant Load Control	
Continue zero environmental complaints performance	
Continue to make cooperation for ICETT	
<ul> <li>Promote activities according to established policies and plans</li> <li>Continue involvement in JBIB's activities</li> </ul>	Corporate Social Responsibility Department Safety Environment Affairs Department
Continuation of current efforts	
Continue conducting activities that meet the needs of affected people	Social Contribution Committee
Continuation of current efforts	
Continuation of current efforts	General Affairs Department Accounting & Finance Department Corporate Communications Department

# **Evaluation by Outside Organizations**

# Listed in a Leading SRI Index Our CSR activities are highly regarded both in Japan and abroad.

(As of June 30, 2013)



In September 2012, for the first time, we were selected for inclusion in the Dow Jones Sustainability Indexes (DJSI) Asia Pacific, one of the world's most influential socially responsible investment (SRI) indexes.



In December 2010, we became the only company in the chemical sector in Japan to be selected for inclusion in both Ethibel Pioneer and Ethibel Excellence, internationally recognized SRI indexes.



In April 2013, we were listed in the FTSE4 Good Index Series for the tenth consecutive year.



In September 2009, we were selected as a member of the Morningstar Socially Responsible Investment Index. Japan's major SRI index.

We are also chosen by Japan Research Institute as a company that possesses advanced CSR management.

# **Third-Party Opinion**

Itaru Yasui, PhD

Professor Emeritus of the University of Tokyo



It was in 2000 that the current CEO Jeffrey R. Immelt took over from former CEO Jack Welch. Immelt was born in 1956 and is still young, but because the term of office for the CEO at GE is about 15 years, the CEO needs to take office at around age 50 at the latest to complete the term of office. This long term of office for a CEO is considered by GE as necessary for pursuing longterm growth as a manufacturer.

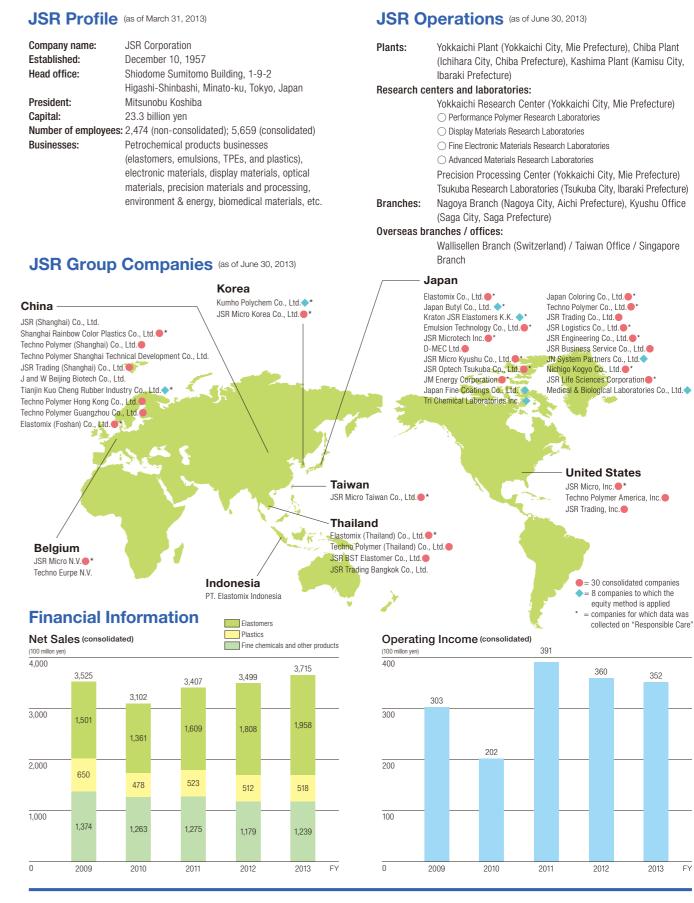
To secure strong competitiveness, it is essential for manufacturers-material manufacturers in particular-to maintain superior R&D capabilities from a long-term perspective. Although R&D does not always succeed, expanding technical capabilities from a long-term perspective is the social responsibility of material manufacturers, and to fulfill this responsibility, manufacturers need to understand user needs accurately. It is essential to grasp user needs on a global level.

Of course, there are risks. Grasping trends on a global level is something that cannot be done on an individual basis. Nevertheless, decisions must still be made by an individual. This problem can be solved only when a group organization in which everyone makes utmost efforts to accomplish the goals of the head office is established and when an information network is developed. With regard to the JSR Group, the fact that JSR Micro, Inc. in the United States issued their own CSR report after being inspired by the CSR Report of the Group is one piece of evidence that confirms the Group's strong unity. The fact that JSR was listed in several SRI indexes and that the company was selected for inclusion in the Dow Jones Sustainability Indexes Asia Pacific in 2012 proves that the effectiveness of the Group's CSR framework was justly recognized.

For JSR, a Japanese chemical company that has already begun working on the biodiversity issue and that leads others in CSR, what should be done in the future to prevent being overtaken by competitors? In my view, the company needs to confirm once again what social responsibilities they can fulfill in the conduction of their primary business of material manufacturing. and to make their CSR activities more systematic and easy to understand. For the company positioned at the top, it is meaningless to try to learn things from the outside world. Just as with developing innovation in materials, the company needs to develop innovative methodologies for CSR by themselves. Toward this end, as pointed out by Ikujiro Nonaka in his book "The Knowledge-Creating Company," the company needs to create a place for deliberation, discuss issues heatedly over and over again, and organize and structure the wisdom gained through such discussions, turning it into explicit knowledge that can be understood by the public. This is the very technique that the company needs to maintain.

# **JSR Group Profile**

Company name:	JSR Corporation
Established:	December 10, 1957
lead office:	Shiodome Sumitomo Building, 1-9-2
	Higashi-Shinbashi, Minato-ku, Tokyo, Japan
President:	Mitsunobu Koshiba
Capital:	23.3 billion yen
Number of employees:	2,474 (non-consolidated); 5,659 (consolidated)
Businesses:	Petrochemical products businesses
	(elastomers, emulsions, TPEs, and plastics),
	electronic materials, display materials, optical
	materials, precision materials and processing,
	environment & energy, biomedical materials, etc.





#### **Cover illustration**

In September 2012, experts and employees conducted an investigation of the habitats of species living in a stream running across JSR's Yokkaichi Plant and other areas situated at the plant site. Various insects, birds, and other species, including medaka rice fish (*Oryzias latipes*), were found there. The illustration on the cover page of this report depicts the plant as well as all the fish, plants and other creatures that live in harmony with it.



### JSR Corporation

CSR Department

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