JSR Micro
MATERIALS INNOVATION

JSR

2014 Corporate Social Responsibility Report

MATERIALS INNOVATION

Materiality Disclosures Service

JSR Micro's 2014 Corporate Social Responsibility Report was submitted to Global Reporting Initiative (GRI) for the Materiality Disclosures Service. Through this service, GRI verifies the correct placing of general standard disclosures G4-17 to G4-27, in the GRI content index as well as in the text of the report. No further adjustments were made to the text of the report after this verification by GRI. Please see page 66 for the GRI Materiality Disclosure Service logo.

Disclosures G4-17 to G4-27 cover the process for determining material topics, the scope and boundary of these topics, as well as JSR Micro's approach to stakeholder engagement.

Feedback & Contact Information

Our CSR reports can be accessed at www.jsrmicro.com. We value your comments and suggestions, which help us improve future reports. Please share your feedback or questions by contacting Phyllis Moracco, Human Resources Director, at sustainability@jsrmicro.com.

ABOUT THIS REPORT

JSR Micro, Inc. is pleased to present our 2014 Corporate Social Responsibility (CSR) Report. As our second biennial report focused on our CSR approach and performance, it covers the period from April 1, 2012, to March 31, 2014, which represents our fiscal years (FY) 2012 and 2013. Any exceptions are clearly noted.

Our inaugural CSR report was published in April 2012 and later nominated for consideration in CorporateRegister.com's CR Reporting Awards as one of the Top 10 in the Best 1st Time Report category. The report followed the Global Reporting Initiative's (GRI) Sustainability Reporting Guidelines, Version 3.1, at an Application Level C. For this report, we chose to prepare the report "in accordance" with the Core option of the GRI G4 Sustainability Reporting Guidelines (GRI G4 Guidelines). Refer to the GRI Reporting Information section on page 62 for the GRI Content Index and additional information on the development of this report.

Entities Reported and Data Boundary

This report is limited solely to JSR Micro, Inc. and our US-based operations, which include the corporate headquarters in Sunnyvale, California, the field office in Oregon, the research lab in San Diego, California, and remote sales employees. It excludes JSR Micro's joint ventures and entities with which JSR Micro has joint development agreements.

The data boundary for the performance indicators in this report is unchanged from the 2012 report. The environmental data represent the facilities at our Sunnyvale headquarters (plant, labs, warehouse and administrative office). All other indicators, including disclosures relating to operational and management performance, represent JSR Micro. Refer to the Environmental Stewardship section on page 38 for information on the change in base year for our new environmental reduction goals.

Changes Since Last Report [G4-22, G4-23]

Laboratory renovation: We renovated the Life Sciences research laboratory located at our headquarters in Sunnyvale, California. The lab's expansion contributed to a 100% increase in the number of employees in the Life Sciences group (14 in total, including product managers and research scientists).

New R&D laboratory: We converted a 3,300-square-foot space into a new JSR Micro Life Sciences research and development (R&D) laboratory in San Diego, California, which was completed in May 2014. Learn more about the facility on page 13.

New partnerships and joint development agreements: To expand our work within the electronic and biopharmaceutical industries, JSR Micro established partnerships and joint development agreements in 2012 with two companies with complementary product portfolios: NexPlanar Inc., a start-up company in Hillsboro, Oregon, which manufactures chemical mechanical polishing (CMP) pads for the semiconductor market; and Natrix Separations Inc., a corporation based in Ontario, Canada, engaged in the development and manufacture of high-performance chromatography products for the life sciences market. The report excludes these and similar entities with which JSR Micro has joint development agreements.

Restatement: The greenhouse gas (GHG) emissions results for FY08 to FY11 in the 2012 report were recalculated to reflect the emission factor adjustments made by Pacific Gas and Electric Company (PG&E). The recalculations did not have an effect on JSR Micro's overall performance trend or reduction plans. Recalculations are reported on page 74.

CONTENT

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MESSAGE FROM OUR PRESIDENT

JSR Micro is proud to announce our second CSR report. During the last two years, we have built on the momentum created by our first report, strengthened our internal processes and reached out to stakeholders for feedback and ideas to extend our programs. The concepts of social and environmental responsibility are critical in our approach to corporate citizenship and help make us an overall healthier organization. Our CSR strategy is also informed by the rich heritage of our corporate parent, where the decision to venture into any new market is guided by a mission to develop products that improve society, which dovetails with the goals of sustainability.

Our core business is in the electronics industry, where customers have moved beyond an expectation of reliable, cutting-edge technology to demand transparency, consistency and quality throughout a manufacturer's supply chain. This has increased the pressure on us to differentiate on quality and placed greater importance on our internal processes and robust metrics, because the ramifications of missteps can compromise trust and brand value.

The quality principles and practices of the semiconductor industry are seen as exemplary, and numerous customers have recognized our efforts.

In 2013 JSR received the prestigious Supplier Continuous Quality Improvement (SCQI) award from Intel for the fifth time, and GLOBALFOUNDRIES recognized us through its first annual global Supplier Awards. For JSR Micro, quality and safety standards (ISO 9001, ISO 14001, OHSAS 18001) are more than certifications. They are ingrained in our culture and a core part of our strategy. We are committed to taking a leadership role in expanding our quality systems throughout our organization and supply chain and into new markets. The energy and environment and life sciences sectors, for example, have reacted well to our disciplined approach to manufacturing quality systems.

To continue to excel in quality and enable real improvement, we need to engage our supply chain partners to promote CSR practices upstream.

The majority of excursions that we are seeing originate in our supply chain. We are leveraging our relationships with large-cap, foundational customers to effect change among our sub-suppliers, and we are confident that they will recognize the value in strengthening their quality practices. The benefits of these types of changes will reverberate along the value chain. To accomplish this, we have implemented a balanced scorecard goal for supply chain management and have plans in place to roll out a supplier code of conduct within the next year.

But it is important that we simultaneously focus inward. Safety, like quality, is a value rather than a metric to be managed. We are proud that we have not had any chemical-related injuries since 2009 and our ergonomics injury count is trending downward. However, we also saw an increase in common workplace injuries such as slips, trips and falls in 2013. This tells us that we face a new challenge of enhancing and fostering our culture so that safety is fully integrated into everyone's activities and mindset.

Looking at our recent achievements, I am pleased with the progress of our CSR program. Most of our goals are on track (summary table on page 17), and when a goal was not met, there was a clear, attributable reason. For example, in 2012 we opened a new LEED Silver certified building, which enabled us to meet our greenhouse gas (GHG) and water reduction goals despite the facility expansion. However, removing one of our buildings and an unexpected change in manufacturing parameters caused us to miss our goals for reducing hazardous and non-hazardous waste. Other achievements include receiving the Bay Area Green Business certification, completing our implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS), continuing employee training on energy and water conservation and initiating an employee Green Award program.

In closing, it is both rewarding and satisfying that our efforts are being recognized and having a positive impact in the workplace, in the environment and in the community. It is at the same time humbling because there is always more that can be done. I look forward to expanding our efforts and sharing our progress in the coming years.

Sincerely,

Eric Johnson
President

ABOUT JSR MICRO

OUR COMPANY & STAKEHOLDERS

Overview

Established in 1990 as a wholly owned subsidiary of JSR Corporation (also referred to as the JSR Group), JSR Micro, Inc. is a Delaware corporation headquartered in Sunnyvale, California. Most of our 160 employees are based in Silicon Valley, where our administrative and manufacturing operations are located. We have two additional operations: an office in Oregon and a recently opened laboratory in San Diego.

Approximately 12% of our workforce is strategically positioned throughout the United States in Southern California, Arizona, Connecticut, Massachusetts, New Hampshire, New Jersey, New York, North Carolina, Oregon, Texas and Virginia.

JSR Micro's core business is the manufacture and distribution of more than 200 high-performance photoresist products to leading semiconductor manufacturers in the electronics industry throughout the United States. Through our parent and sister companies, our products are also distributed throughout the world.

In recent years, we branched out into new markets. JSR Corporation launched JM Energy Corporation in 2007 to further the development and delivery to market of the lithium ion capacitor (LIC). LICs are applied in industrial processes in various sectors. Our Energy and Environment department works to introduce LICs and complementary products to the US market.

With the need for medical and healthcare products increasing worldwide, JSR Group recognizes the life sciences as a strategic growth market. Our Life Sciences department, founded in 2009, develops medical products for pharmaceutical companies in the healthcare industry, building on our corporate parent's 30 years of research and development experience in this area.

The Our Products section beginning on page 12 provides more details on our products and their applications.

Memberships

JSR is a corporate member of the Society of Photographic Instrumentation Engineers (SPIE), and is an annually contributing participant at the SPIE conference. We are also a member of the World Semiconductor Council, the Semiconductor Industry Association and SEMI (Semiconductor Equipment and Materials International). JSR endorses the five key principles of SEMI's Global Care initiative:

- Workplace Health and Safety
- Resource Conservation
- Product Stewardship
- Community Service
- Excellence

For more information, see: http://www.semi.org/P009555.

Our Stakeholders

[G4-24, G4-25, G4-26]

The relationships we have with our stakeholders—our employees, customers and business partners as well as our suppliers, the local community, industry organizations, and select government and regulatory agencies—are essential to our success.

All our stakeholders contribute to our awareness, analysis and ownership of the varied challenges of balancing the economic, social and environmental aspects of our operations.

Working with our executive leadership, the CSR team evaluated and prioritized key stakeholders as those most likely to be impacted by JSR Micro's business and sustainability initiatives, as well as those that enable us to execute our strategy. Engagement with these stakeholders is an organic process occurring daily, monthly or quarterly in different ways with various stakeholder groups. For a detailed overview of our methods of engagement with key stakeholder groups, please see pages 18 and 19 in our 2012 CSR report.

JSR Micro's Executive Team

Our Innovation One-on-One approach, described on page 26, exemplifies JSR's approach to collaborative stakeholder engagement. In addition, employee engagement is important to fostering innovation and retaining talented employees, as discussed further on page 54.

For information on our approach to stakeholder engagement related to the development of this report, refer to the GRI Reporting Information section on page 64.

Governance

JSR Micro is privately owned, with JSR Corporation in Japan holding 78% and JSR Micro N.V. in Belgium holding 22% of the company. The US-based board of directors is our highest-ranking governing body. Four of the board's seven members serve on JSR Micro's executive team, and three others serve as directors at JSR Corporation. JSR Micro's President, Eric Johnson, serves as Chairman of the Board, which oversees JSR Micro's Executive Committee. The committee, which develops and executes business strategy, meets with JSR Corporation quarterly to coordinate strategic efforts while running the company on a daily basis. This governance structure balances the interests of our shareholders with JSR Micro leadership.

OUR PRODUCTS

JSR Micro's core business is the development and fabrication of diversified semiconductor materials for microchip manufacturers. Working with JSR Corporation, we have expanded our activities in recent years into the areas of life sciences and energy and environment. JSR Corporation develops the initial materials and chemistries, then JSR Micro develops and introduces new products to the US market.

Electronic Materials

JSR provides high-quality photoresists and other lithography materials, custom-made for our customers. Using lithography, our photoresists create the patterns on semiconductor substrates, which enables the creation and function of microchips that we find in everyday objects such as smartphones, laptops and tablets.

Our photoresists enable etching of intricate patterns into a variety of underlying substrates, which creates billions of transistors on just a couple of square millimeters. Lithography technology is indispensable for creating next-generation products that meet the growing demand for smaller, faster and more energy-efficient microchips.

This demand is also driven by recent markets such as the "Internet of Things" — using computing resources to connect everyday devices to the Internet and applying the data gathered to optimize their use. Through our Innovation One-on-One approach (see page 26), we leverage our materials and lithography knowledge to find innovative solutions that enable our customers to provide solutions for these trends.

Energy & Environment

JSR Corporation was the first to commercialize lithium ion capacitors via its subsidiary JM Energy, which is dedicated to the development, manufacturing and marketing of its ULTIMO™ brand LIC. LICs are an advanced type of electrochemical (super) capacitor with much higher energy density than traditional super- or ultracapacitors. These types of electrical storage devices store or release electricity through rapid electrostatic reactions, unlike batteries that release electricity through slower chemical reactions.

LICs excel in applications that frequently require or absorb high power for short periods of time. An LIC's extremely long cycle life at high rates and its long calendar life make it ideal for bridge or transition power, uninterruptible power supply and voltage sag compensator markets, which have been early adopters.

LICs have been adopted or evaluated in applications such as hybrid excavators, hybrid vehicles, remote sensors, automated guided vehicles and LED lighting. Interest in additional applications continues to expand; examples include using LICs with other energy-storage devices such as batteries and fuel cells to further improve their efficiency and

adding pulse-power capabilities while reducing energy-storage space and/or weight.

JM Energy and JSR Micro continue to invest in, and develop, LIC technology. JM Energy recently announced its factory expansion and the addition of a new prismatic cell and UL certification for its commercialized cells.

In addition to progress with LICs, JSR Micro's environmentally friendly aqueous binders, which are used to hold together active materials in battery and ultracapacitor electrodes, continue to generate market interest over traditional solvent-based PVDF (polyvinylidene fluoride) binders.

Life Sciences

JSR Micro's entry into the life sciences market leveraged our latex beads technology, where the beads are used by in vitro diagnostics (IVD) companies to produce diagnostics kits for diagnosing diseases. To promote test automation, the IVD market has embraced paramagnetic particle technology so that programmed robotics can handle hundreds of test samples at once. JSR's Magnosphere™ superparamagnetic beads are used in these applications as well as in research reagents for the separation and purification of proteins, nucleic acids and cells.

We recently made a further push into the biotechnology market by developing JSR's Amsphere™ Protein A chromatography media. This product targets the expensive Protein A purification step for the production of monoclonal antibody therapeutics where purity of the product stream and reduction of costs required to achieve target purity are important to biopharmaceutical companies. JSR has leveraged our technologies in precision polymer synthesis, surface modification and genetic engineering to produce a superior product. To increase our product offering for the downstream purification chain, we have made further investments in or partnered with companies, such as Natrix Separations, that produce purification technologies.

One of our mainstays is medical polymers such as elastomers, thermoplastic elastomers and specialty resins for use in medical devices such as IV bags, tubes and transdermal patches. We develop and manufacture these polymers using our specialized polymer technologies, which we continue to improve in quality and performance to meet customers' needs.

New Life Sciences R&D Laboratory Advances Biotech Product Development

In May 2014, we opened the new JSR Micro life sciences research and development laboratory in San Diego, California. The 3,300-square-foot lab is an added operation to our existing R&D laboratory located at our Sunnyvale headquarters. The new facility serves as an innovation center for all state-of-the-art product development in in vitro diagnostics and biomarker research. JSR's scientists working in the lab will focus on establishing alliances with other biotech institutions in the region and collaborate with leading scientists to further advance scientific research and deliver creative solutions to the field of diagnostic testing and antibody engineering.

PURSUING CSR EXCELLENCE AT JSR MICRO

OUR APPROACH TO CSR MANAGEMENT

At JSR Micro, corporate social responsibility is an extension of our culture, which is defined by customer focus, quality and innovation. As such, our CSR program is built on the foundation of JSR's operations: operational excellence, innovation and market leadership. And it comes to life through the strong support and engagement of our employees.

To embed CSR into organizational processes, we have integrated the program into our management systems.

While JSR Micro's president has ultimate responsibility for CSR performance, a cross-functional team manages the CSR program and works on initiatives across the organization. The CSR team also focuses on employee engagement and involvement in CSR activities and strengthening a CSR mindset within our culture. Our HR, Environmental, Health and Safety (EH&S) and Quality departments are responsible for various aspects of the CSR program within the company, such as managing designated projects and working with customers and suppliers with respect to CSR requirements. The departments work closely together to align their efforts and further cultivate CSR within the company.

Evaluating Our Progress

To evaluate performance and drive improvement, CSR is included on our balanced scorecard, where it is tied to executive goals and remuneration. The CSR Progress & Performance Summary on the next page highlights our goals and performance during the reporting period.

The CSR reporting process also provides an effective approach to evaluate our performance. A first CSR report is a baseline measurement—and an impetus for ongoing improvement. Developing our first report enabled us to identify opportunities for improvement, including overall integration of our CSR program within the organization. Finding the right structure for the management oversight of CSR, an area that is widely dispersed throughout the organization, has been one of our challenges during the last reporting period.

We will continue to explore effective ways to manage and improve our CSR program and to streamline our approach. In addition, we will continue to publish CSR reports biennially as a way both to inform our key stakeholders of our progress and to evaluate the effectiveness of our approach.

"Corporate social responsibility is a business's version of being a good citizen. Both people and companies are most successful when they recognize that they're part of something larger than themselves, and they replace simple self-interest with enlightened self-interest."

- Jim Mulready
Vice President, Global Quality Assurance

CSR Progress and Performance Summary

Material Topic [G4-19]	**Goal**	**Performance**
Health & Safety: Employees	Reduce workplace injuries.	No chemical injury has occurred since FY09. There was a decrease in ergonomic injuries, but an increase in common workplace injuries. Efforts to improve safety culture have been started to reduce common workplace injuries.
Health & Safety: Customers	Complete implementation of, and support for, GHS safety data sheets (SDSs) and labels by the end of FY14.	The GHS conversion and implementation was completed in August 2014. Support is ongoing.
Quality Management & Operational Excellence	Confidential	Achieved
Business Continuity & Risk Management	Maintain zero high risks on the EICC Risk Assessment II (RA2) assessment.	Achieved
Chemical Waste Management (Hazardous Waste)	Reduce total hazardous waste by 45% from FY08 baseline level by FY18.	We achieved the lowest volume in FY12, but experienced an increase in FY13 due to an unexpected manufacturing plan change.
Energy & Greenhouse Gas Emissions	Reduce total GHG emissions by 10% from FY08 baseline level by FY13.	Achieved
Innovation	Publish one magazine article on our research results every two years.	Achieved
Talent Retention: Employment	Maintain turnover rate that is 15% below the national average.	Achieved
Talent Retention: Training and Education	Maintain 100% coverage of employees by regular performance reviews.	Achieved
Market Share	Confidential	Confidential
Compliance	Maintain 100% compliance with environmental laws and regulations.	Achieved: No environmental violations occurred in FY12 or FY13.
Water	Reduce total water usage by 35% from FY08 baseline level by FY18.	Achieved
Supplier Human Rights Assessment	Send out a supplier code of conduct to top-tier suppliers by the end of 2015.	In progress

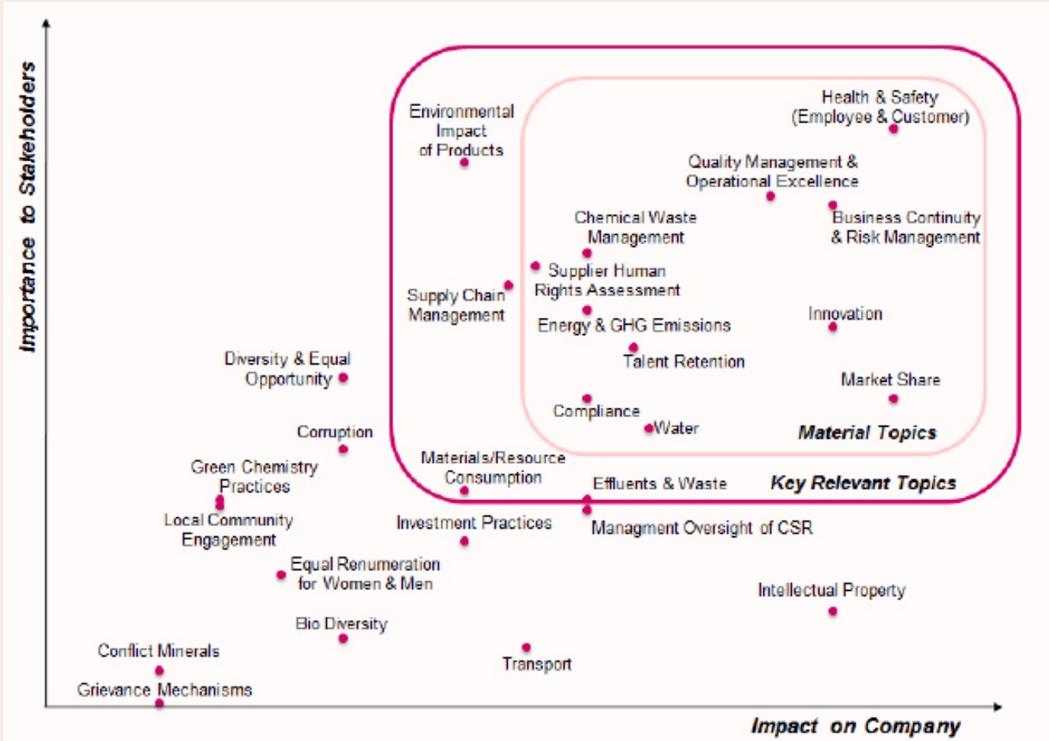
Identifying Our CSR Priorities [G4-18, G4-19]

To determine our CSR priorities, the CSR team conducted a materiality assessment to evaluate relevant topics on their importance to stakeholders and level of impact on the company. The process is described in the GRI Reporting Information section on page 62. The result of the assessment is an updated list of the topics that guide our CSR initiatives and define the contents of this report.
The materiality matrix shows the prioritization of the topics evaluated and identifies two levels of reported topics: material topics and key relevant topics.

Material topics are those ranked as being of medium to high importance to stakeholders and with significant impact on business operations (medium-to-high ranking). We were fortunate to find a close correspondence between these two perspectives. The report covers material topics in depth with discussions on management approach and performance indicators.

Key relevant topics are additional topics covered in the report due to their level of importance to stakeholders or impact on the company. Coverage of the key relevant topics is at a less detailed level and generally does not include performance indicators.

Although the remaining topics listed in the matrix are not covered in the report, they are considered relevant to JSR Micro's operations and our CSR impacts.



Materiality Matrix

Commitments to External Initiatives

JSR Micro endorses many global standards, charters, principles and other initiatives such as the universal principles of the United Nations (UN) Global Compact, the EICC Code of Conduct to foster responsible global electronics supply chains and the Global Care framework aimed at strengthening the semiconductor industry's EH&S commitment.

Our CSR program builds on the knowledge, experience and guidance within these frameworks and initiatives. The following table lists the external initiatives that JSR Micro endorses and those to which we subscribe.

Ensuring Ethical Behavior

Ethical behavior is integral to our business approach and reinforced within our CSR program. We follow the JSR Group Principles of Corporate Ethics, and we voluntarily adopted the EICC Code of Conduct in 2012 (see page 32). Endorsement of both codes is mandatory for all employees. JSR Micro assures active implementation of the codes through regular training on subjects such as sexual harassment, diversity and anti-corruption. All employees as well as management are expected to participate in these trainings.

Memberships to External Initiatives

Initiative	Date of Adoption	Application	Stakeholder Reach	3rd Party Audited
ISO 9001	1998	JSR Micro's operations	Global standard	Yes
SPIE	2005	JSR Micro's operations	Semiconductor industry	No
SEMI Global Care	2007	JSR Micro's operations	Semiconductor industry	No
UN Global Compact	2009	JSR Group's global operations	Global initiative	No
ISO 14001	2010	JSR Micro's operations	Global standard	Yes
OHSAS 18001	2010	JSR Micro's operations	Global standard	Yes
EICC Code of Conduct	2012	JSR Group's global operations	Electronics industry	Yes
California Green Business Program	2013	JSR Micro's operations	California businesses	Yes

FOCUSING ON OUR CSR PRIORITIES

BUSINESS CONTINUITY & RISK MANAGEMENT

Business continuity and risk management efforts complement each other with their shared objectives of ensuring ongoing operations and achieving our strategy. With risk mitigation and management, we orchestrate our actions based on the assessment of the likelihood of an occurrence, whereas with business continuity we plan for worst-case scenarios.

A robust approach to risk management and business continuity planning (BCP) is essential for all companies, and it is critical to assuring stakeholders of JSR Micro's long-term viability and success. Both risk management and BCP have become increasingly more important because we are living in an increasingly interconnected and interdependent globalized world. We understand that risk ripples across the value chain; therefore, our approach is comprehensive and collaborative, involving the JSR Group, our customers and our suppliers.

Our Approach to Business Continuity Planning and Risk Management

BCP and risk management begin at the JSR Group level and continue within each division, including JSR Micro. The JSR Group's Risk Management Committee oversees group-wide risk management and response planning for each division. The committee identifies and evaluates risks and formulates response policies, and the CSR Committee monitors progress. The business continuity plans and identified risks for JSR Group divisions are translated into policy at the local level. The following sections describe approaches specific to JSR Micro.

To ensure the effectiveness of its approach, the JSR Group contracted a third party to review and evaluate its risk management system and programs, which confirmed the "solid structures and systems in place for managing risk," which "consistently promoted risk management activities." The review also identified areas for improvement. A more detailed description of JSR Group's approach to risk management is available online: jsr.co.jp/jsr_e/csr/2013/risk.shtml.

BCP Within JSR Micro

Core to BCP are preparedness for contingent events, the ability to continue operations under unforeseen circumstances and quick recovery when continuing operations is not possible. For all these scenarios JSR Micro has developed detailed plans, which management reviews on a yearly basis. Furthermore, we perform annual BCP drills. In 2015 we will include drills along the supply chain.

Risk Management Within JSR

JSR Micro identifies, mitigates and manages risks associated with our operational processes through our ISO 14001:2004 certified environmental management system and OHSAS 18001:2007 certified health and safety management system. These systems integrate a precautionary approach to identify and mitigate potentially adverse impacts of our operations. Refer to the Environmental Stewardship section on page 38 and Customer Health & Safety section on page 34 for additional information. Before procuring new chemicals or products, the EH&S department reviews their potential human and environmental hazards, as well as potential exposure routes, emergency responses, safe disposal and storage methods, and regulatory restrictions. To assess level of risk, we apply ranking criteria such as severity, likelihood of occurrence, frequency of occurrence, level of public concern and degree of control. We use an environmental scoring system to measure and track implemented improvements.

At a broader level, performing a materiality assessment as part of our CSR program, described further in the GRI Reporting Information section on page 62, helps identify and prioritize risks over longer periods of time. It also enables us to consider and respond to the risks our stakeholders perceive.

Supply Chain Risk Assessment

Our customers have asked for more transparency regarding risks and BCP, and many use the EICC Risk Assessment II (RA2) tool to evaluate supply chain risks. The RA2 is a second-level risk-assessment tool developed by the EICC, which enables corporations to evaluate specific areas of risk in their supply chain. The RA2 has sections on management systems, labor, health and safety, environment and ethics. The assessment results in a percentage score and the identification of risk levels (low, medium and high) within each section.

JSR Micro completes the RA2 for many of our customers on an annual basis and shares our overall and section scores and risk levels. Some of our customers include the RA2 scores in their supplier scorecards and set criteria for zero high risks and a maximum of four sections with medium risk, for which plans must be in place to improve the scores (i.e., reduce risk) in those sections. JSR Micro has met our customers' requirements and our performance goal for zero high risks each year. Nonetheless, we aim to continue to improve our RA2 scores, which help us evaluate the effectiveness of our approach to risk management.

Considering Climate-Related Risks

The impacts of climate change heighten our attention to risk management and the need for business continuity planning. Our approaches in these areas help ensure resiliency in the face of an increased likelihood for more frequent and more severe weather-related events such as flooding, droughts and storms and related impacts such as wildfires. These risks are palpable at our local operations and our parent and sister companies as well as throughout our supply chain.

In addition, some customers choose to follow up with an on-site EICC-validated audit (RA3). JSR Micro did not undergo any RA3 audits during the report period.

Within our supply chain, we evaluate new suppliers and review existing ones to identify potential areas of risk. Our approach, described in the Responsible Supply Chain Management section on page 30, integrates the EICC sections and elements of the RA2.

QUALITY MANAGEMENT

Quality at JSR Micro is not just a business priority or the receipt of a certificate: It is a core value. As such, JSR Micro's quality journey has taken us far over the past two decades. We are dedicated to higher quality and believe that integrating quality into our business strategy not only promotes alignment of all functional activities toward common goals but also impacts the organization's focus and effectiveness on all quality initiatives.

Our business operates in a highly competitive market, and in order for us to be competitive we need to continue offering superior products and delivering quality service. We believe that service quality is largely determined by the customer's perception, which is why meeting—and even exceeding—customer expectations has been a top priority. Being a top-tier supplier, we are committed to continuously improving our relationships with our customers and the quality of their experience.

Our Approach: Quality from the Start

Our quality culture is embedded across all levels of our organization. All employees have a responsibility to support quality. By integrating the voice of the customer across the organization, we proactively manage customer expectations and consistently deliver exceptional products and services. Because those expectations include our performance in CSR areas such as environmental stewardship and supply chain management, quality management is an integral part of our CSR approach.

JSR Micro adopted ISO 9001, the international standard for quality management, when we began operations in 1998. It promotes a quality culture that is focused on leadership, process and a systems-based approach, customer satisfaction, continuous improvement and people's involvement in quality efforts. Our ISO 9001:2008 certified quality management system is subject to a yearly surveillance audit and a recertification audit by an ISO registrar every three years. These audits ensure continued compliance with the ISO standard, policies and requirements.

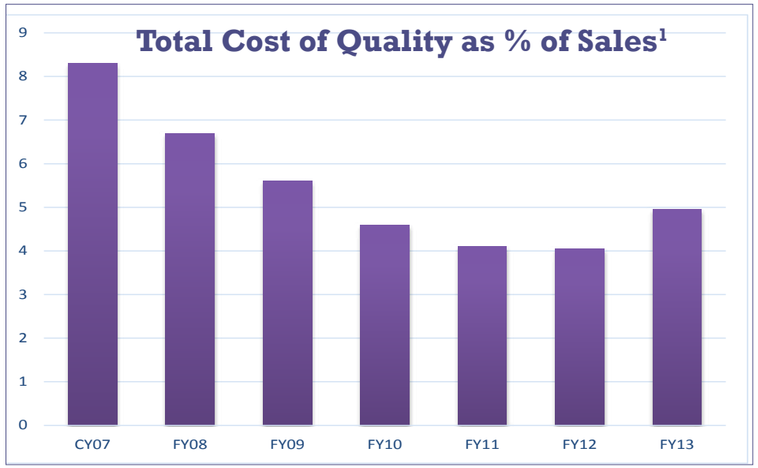
In addition, both the ISO 14001 environmental management system and OHSAS 18001 occupational health and safety management system undergo the same frequency of audits and recertifications. Together these standards provide a systemwide, systematic approach to managing quality and environmental, health and safety issues within our organization.
We assess the effectiveness of our approach to quality management internally through our ISO certification and performance measures, and externally through the evaluations and recognition we receive from our customers, as described in the following sections.

Evaluating Quality Performance

To track nonconformance to requirements and corrective and preventive actions, we review the total cost of quality in relation to total sales to better understand the impact of quality on the organization (see chart on the next page). The total cost of quality is the sum of costs associated with the following three main categories:

Prevention: Cost of investing in the prevention of nonconformance to requirements
Appraisal: Cost of appraising a product or service for conformance to requirements
Failure: Cost of failing to meet requirements

Our objective is to invest sufficiently on the Prevention and Appraisal components to drive down the Failure component, such that we spend the minimum amount of our company's revenues on quality overall. Our experience with this approach demonstrates that we can significantly reduce the overall cost of quality and achieve a multimillion-dollar level of savings every year compared to our original baseline. Contrary to the common misconception that quality is expensive, our results show that quality programs pay for themselves many times over. Since 2007, we have reduced total cost of quality as a percentage of total sales by 40%—while increasing customer value. Although the FY13 result increased from the previous three years, we expect that the FY14 value will be closer to our results in FY11 and FY12.



Customer Evaluations & Recognition

One of our goals is to continuously improve the quality of our customer experience and their assessment of the quality of our products and services. Customer evaluation and recognition provides another lens through which to assess the effectiveness of our approach to quality and customer engagement.

Our customers use scorecards/report cards to evaluate their suppliers based on their specific expectations. These scores help us monitor, assess and improve quality and the health of our customer relationships. We set specific targets based on each customer's expectations for top-tier suppliers, with an overall goal to achieve all targets each year.

External recognition by our customers further demonstrates the quality of their experience with JSR. In 2013 JSR received the Intel Supplier Continuous Quality Improvement award for the fourth consecutive year—and the fifth time in the last six years. This award is the highest quality award that Intel gives to encourage its roadmap suppliers to strive for best-in-class levels of excellence and continuous improvement in performance, cost, quality, delivery, technology and environmental, social and governance areas. In 2014 JSR was recognized through GLOBALFOUNDRIES' first-ever global Supplier Awards, receiving the Excellence Award for Collaboration and Sustained Support.


Receiving the 2013 SCQI award at Intel

INNOVATION

JSR Micro is an innovation company: Our core business is materials innovation of chemicals. We stay ahead of the curve through close collaboration with only the best in the industry.

Our materials innovation expertise is the value we provide to our existing customers in the semiconductor industry, and it is the point of departure for venturing into new markets such as life sciences and energy and environment. Through JSR Group's mission "to contribute to society through Materials Innovation," we identify markets that face challenges that we can solve with our expertise.

Companies within the semiconductor industry, for example, are highly specialized yet need much coordination to optimize development efforts for next-generation technologies. Industry leaders developed the International Technology Roadmap for Semiconductors (known as ITRS), the 15-year assessment of the semiconductor industry's future technology requirements. Its goals are driven by "Moore's Law," the prediction that the number of transistors on a microchip will double roughly every 24 months, while manufacturing costs will be reduced.

JSR's role within the technology roadmap is to come up with creative solutions for architectural challenges that customers face. By working closely with our customers to understand their specific needs, we use our materials expertise to translate those needs into lithography solutions. In this way, we accelerate each customer's innovation trajectory.

"JSR is an industry leader in advanced semiconductor materials for high performance and consistent, excellent quality. We develop and produce novel, award-winning photoresist materials for leading edge and sustaining semiconductor manufacturers. There are no scientific or engineering challenges we shy from; we always push for the best performance and quality for the next generations of technology."

- Brian Osborn
Lithography Manager

Our 'Innovation One-on-One' Approach

"Innovation One-on-One"—our approach to discovering and adapting product technologies to fit specific customer requirements—is not just a slogan. Innovation One-on-One means unique solutions for each customer. It summarizes the company's strategy as well as the culture. Over the years, it has served to unify the operations of our growing global company.

Cultivating Innovation Through Collaboration

We leverage our materials expertise through ongoing collaboration, exchange and experimentation, cultivating the innovations that customers have come to expect of JSR. To increase opportunities for cross-pollination and innovation, the Sunnyvale plant is strategically situated among Silicon Valley giants, and our researchers are sent out to partners throughout the country and work with peers in Japan and Belgium.

We collaborate through joint research and joint development agreements to optimize multiple patterning with existing ArF and KrF photoresists, as well as to research opportunities to bring next-generation technology such as EUV (extreme ultraviolet lithography) and DSA (directed self-assembly) to market.

Evaluating Innovation Performance

The effectiveness of our approach is shown through our market leadership (see next page) as well as through the awards for excellence in quality and cooperation that JSR Micro has received from our industry-leading customers (see page 25).

In addition, we track research publications and other methods of sharing the results of our research and development efforts on subjects such as advanced lithography materials, EUV lithography, bioprocess materials and medical beads. Our goal is to publish at least one magazine article that details the results of our research every two years, which we have met over the 2009–2013 period. During the same period, we authored or co-authored many research papers and shared the results of our research at sector conferences through presentations and the publication of posters.

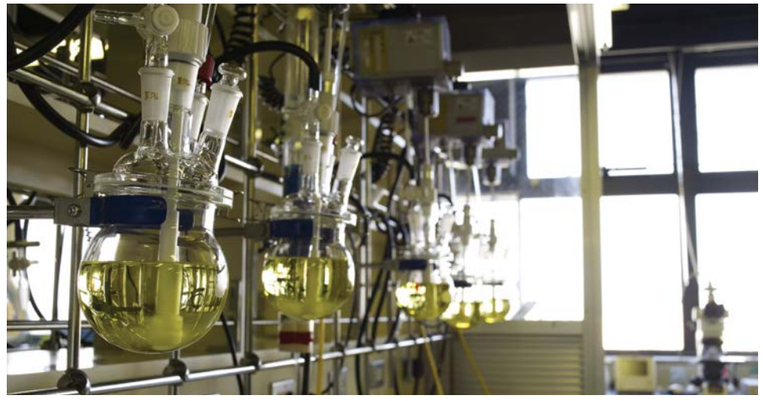
Research Publications

Calendar Year	Research Paper	Research Presentation	Poster (Other)	Magazine Article
2009	6	1	1	0
2010	5	1	1	1
2011	6	2	3	1
2012	9	1	5	0
2013	1	0	4	1
Total	27	5	14	3

Innovation & Market Share

Market share demonstrates the relevancy and performance of JSR's products. Maintaining leadership in the semiconductor materials market requires technology and materials innovation to develop tomorrow's solutions and remain competitive, areas in which JSR excels.

Market share is managed through innovative product development for next-generation material opportunities at semiconductor manufacturers. Aggressive research and development is the primary driver for improvements and innovations in photoresist and related materials to meet the demands of leading-edge semiconductor manufacturers. By understanding our customers' needs, we aim to achieve POR status: the process of record that is the standard adopted for high-volume manufacturing. Our approach begins with clearly identifying manufacturers' needs for next-generation technology and then involves iterating and optimizing new and existing resist components to achieve and surpass customer targets.



JSR is active in many areas of new development. Advances have been demonstrated across the spectrum of lithographic materials from KrF and ArF photoresists to immersion and multi-patterning techniques, and extending into directed self-assembly (DSA) and extreme ultraviolet lithography. JSR continues to invest in next-generation materials, ensuring product relevancy and market share.

The details of our performance and goals for market share are confidential.

Innovation to Improve Environmental Impacts

JSR develops innovative materials and technologies to provide customers with greater added value and to help conserve resources and energy, as highlighted in the following examples..

Reducing the Resource Intensity of Our Products

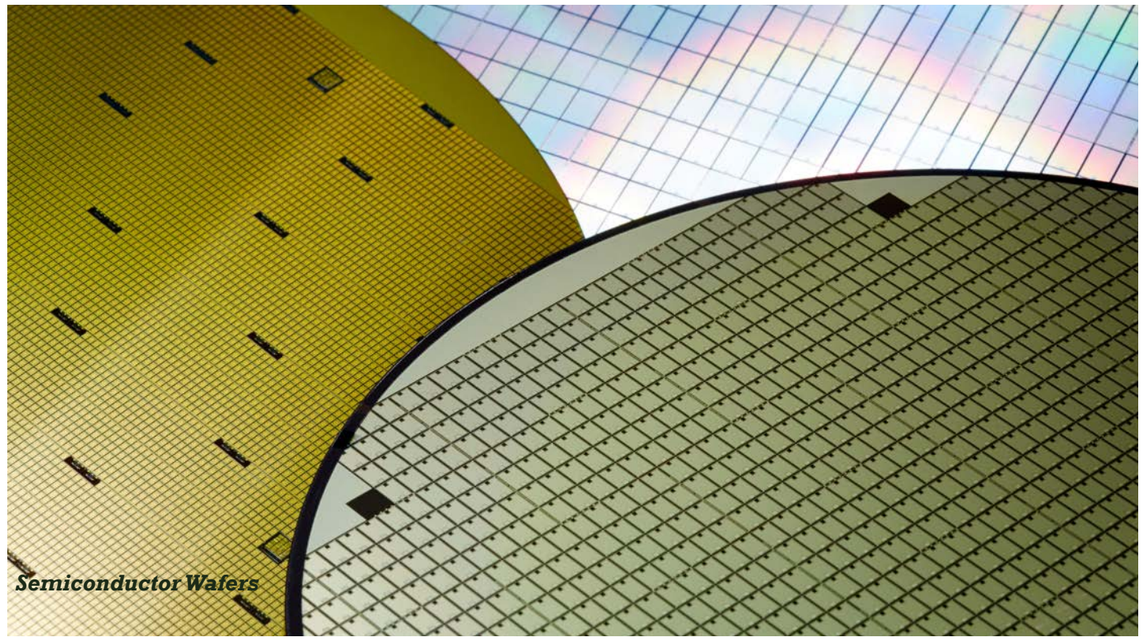
Accelerating innovation can have both positive and negative environmental implications. For example, the higher density of transistors makes the microchip more efficient through a reduction in power consumption in electronic equipment, prolonged battery life and a reduction in associated greenhouse gas emissions.

Although faster and more efficient microchips and intelligent use of electronic products contribute significantly to reduced environmental impacts over their entire lifespans, the specialized technology makes the fabrication processes more resource-intensive. This is a challenge for our customers, who face demands from their customer base to reduce resource use. As such, it is also our challenge to address these multiple considerations and support the reduction of energy, water and materials used in manufacturing while meeting customer and market demands.

To do so, JSR Micro continues to work with our customers on reducing the overall cost of ownership by optimizing products and processes to reduce the resources used in microchip fabrication. For example, through product innovation, we enable the customer to reduce the total number of processing steps during the fabrication of microchips, in turn reducing the total amount of time it takes to process wafers. The overall result is decreased energy use in the total production process. Furthermore, we develop solvents that require a smaller shot size onto the silicon wafer. This results in reduced material use as well as better cost of ownership per single gallon of material for the client.

Saving Energy Through Materials Innovation

JSR has developed a thermal management material using the concept of phase change to help conserve energy.



Semiconductor Wafers

Phase-change materials undergo a change in physical form at a specific temperature. One example of a well-known phase-change material is water. Water transforms from liquid to solid (ice) at its freezing point. JSR's phase-change material CALGRIP™ transforms from solid to gel, and the temperature at which that phase change occurs may be adjusted through the controlled use of JSR's olefin-based thermoplastic elastomer materials.

Available in five temperature grades, CALGRIP uses the concept of latent heat for maintaining constant temperature making it useful for shipping freeze-sensitive items, such as pharmaceuticals that need to be kept cool but not frozen. Latent heat is the energy that is released or absorbed when the state of the material changes.

Using CALGRIP as the packaging material saves energy because the shipment stays cool without the use of added energy during shipment. JSR is working with global customers to evaluate CALGRIP in various applications, including insulation, air conditioning and packaging for shipping temperature-sensitive items.

Two forms of CALGRIP™ for use in shipping packaging include the aluminum laminate package (left) and the plastic bottle (right).

CALGRIP™ in solid state (left) and in gel state (right).

"JSR promotes innovation through R&D, corporate venturing and partnerships. We are investing in industry segments both within and beyond our core expertise in semiconductor, display, energy and life sciences through limited partnership investments in venture capital funds and direct investments in emerging and innovative companies and technologies. Through this focus on strengthening the core and investing in emerging innovations, JSR is ready for the future."

- Maria Peterson
Senior Manager Corporate Venturing & Innovation

RESPONSIBLE SUPPLY CHAIN MANAGEMENT

We believe that our business can only be truly sustainable if all parties involved across the value chain integrate sustainability and corporate responsibility practices within their own organizations. Likewise, our customers increasingly expect transparency in supply chain risks and management practices.

Their responsible supply chain initiatives and expectations are the primary driver, as well as model, for improvements in our supply chain management program.

It is important for JSR Micro to sustain and build customer trust and loyalty. A key part of doing that involves our efforts to understand, manage and mitigate the key risks affecting our supply chain. Thus, we launched initiatives to evaluate and monitor our key suppliers' social and environmental impacts and practices.

Overview of JSR Micro's Supply Chain

JSR Micro sources goods and services from more than 500 suppliers and vendors for the manufacture of electronic materials. Of those, more than 100 are key suppliers—mostly raw material suppliers, equipment manufacturers, transport/freight forwarders and consignment warehouses—with which we are directly engaged. We also work closely with EH&S service providers and suppliers of silicon wafers, specialty gases, laboratory chemicals and packaging supplies.

Most of our suppliers are located throughout the United States, with a few based in Canada. The majority of our raw materials suppliers are located in Japan.

Focus on Material Suppliers

JSR Micro's primary product is photoresist. Photoresist is made from three main components: resin, solvent and photoactive compound. We partner with domestic and international material suppliers who manufacture their products through polymerization and chemical synthesis. These raw materials are transported to our main headquarters by air, ocean or ground transportation.

Once received, the quality of these raw materials is evaluated through incoming inspection and testing. We conduct final inspections on our products prior to transport and distribution to our global customers.

The environmental impacts of the materials we use result from extraction of raw materials; the manufacturing processes for resin, solvents and polymers, which are energy- and water-intensive and generate chemical waste; and transportation (energy and GHG emissions).

Supplier Human Rights Assessment

Some of our customers have expressed concern about the potential for human rights violations in our supply chain. This is understandable because the chances for violations are high in many parts of their supply chains. Most of our suppliers are located in the US and Japan, countries that Maplecroft's 2014 Human Rights Risk Atlas rates as medium for human rights risks. The risks in these countries are often related to worker protection, stressing the importance of ensuring that our suppliers have robust management systems in place, as discussed further in the following section on supply chain management.

Our Approach to Supply Chain Management

Both JSR Corporation and JSR Micro administer supplier evaluations, training and assessments, and perform supplier audits as part of responsible supply chain initiatives.

While we manage domestic raw material suppliers, our parent company manages all Japanese suppliers. JSR Corporation manages about 80 chemical suppliers for the electronic material business, of which more than 90% are based in Japan, 5% are based in the US and the remainder are in Asia and Europe. Its CSR procurement program covers 95% of these suppliers. As a participant in the UN Global Compact, JSR Corporation is committed to engaging suppliers around the Global Compact's 10 principles to develop more sustainable supply chain practices.

Additionally, JSR Corporation reached out to major petrochemical business suppliers to explore opportunities for biodiversity conservation, an environmental impact area that the company is focused on supporting throughout its business activities and the entire product lifecycle.

Implementing the EICC Code of Conduct

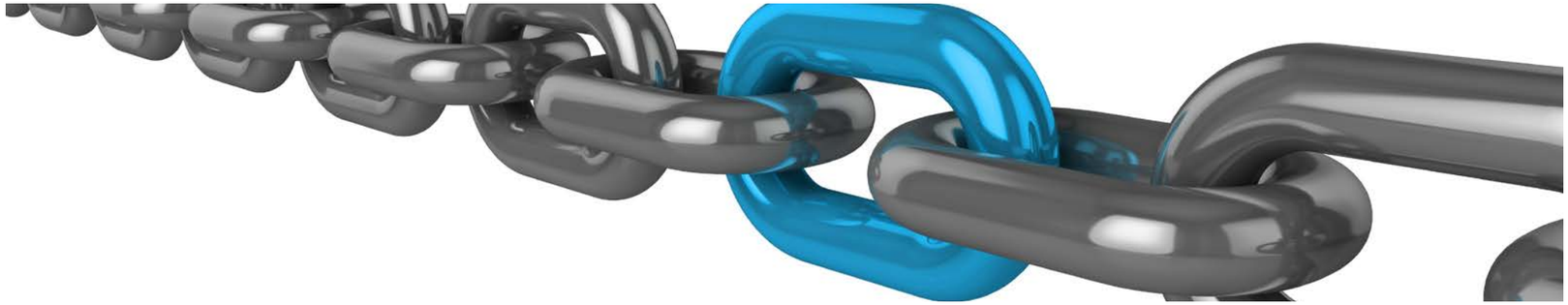
Most of JSR Micro's top electronics customers are members of the EICC (Electronic Industry Citizenship Coalition), the world's largest industry coalition dedicated to electronics supply chain responsibility. The EICC has established the EICC Code of Conduct (available at eiccoalition.org/standards/code-of-conduct/), a set of standards on social, environmental and ethical issues which is regarded as a total supply chain initiative (see table). Our EICC customers have fully endorsed the Code across multiple tiers in their supply chains. As a tier 1 supplier to some EICC members, we voluntarily adopted and implemented the EICC Code. We also pledge to actively declare our commitment to propagate the EICC Code to our next-tier suppliers.

An Industry Standard for Supply Chain Responsibility

The EICC Code of Conduct establishes a standards-based approach to setting objectives and measuring compliance to address supplier performance across multiple areas of social and environmental responsibility, as shown in the following table.

Areas Covered by the EICC Code of Conduct

LABOR	
Freely Chosen Employment	Child Labor Avoidance
Working Hours	Wages and Benefits
Humane Treatment	Non-discrimination
Freedom of Association	
ETHICS	
Business Integrity	No Improper Advantage
Disclosure of Information	Intellectual Property
Fair Business, Advertising and Competition	Protection of Identity
Responsible Sourcing of Minerals	Privacy
Non-retaliation	
ENVIRONMENT	
Environmental Permits and Reporting	Pollution Prevention and Resource Reduction
Hazardous Substances	Wastewater and Solid Waste
Air Emissions	Product Content Restrictions
HEALTH and SAFETY	
Occupational Safety	Emergency Preparedness
Occupational Injury and Illness	Industrial Hygiene
Physically Demanding Work	Machine Safeguarding
Sanitation, Food and Housing	
MANAGEMENT SYSTEMS	
Company Commitment	Management Accountability and Responsibility
Legal and Customer Requirements	Risk Assessment and Risk Management
Improvement Objectives	Training
Communication	Worker Feedback and Participation
Audits and Assessments	Corrective Action Process
Documentation and Records	Supplier Responsibility



Beginning with an Assessment

When we expanded our CSR program in 2012, we made it our goal to reach out to our suppliers and include them in our journey, similar to how our customers have worked with us. To gain knowledge of the sustainability risks and performance in our supply chain, our Procurement department took initial steps in FY13 to assess our key suppliers' compliance to the EICC Code of Conduct. The evaluation process involved a CSR procurement survey that we sent to 27 tier 1 raw material suppliers; freight forwarders; trucking, warehouse and EH&S providers; and key vendors. These targeted suppliers included those viewed by JSR Micro to have potential impact on the quality of the products manufactured, those who hold JSR assets and those from whom we purchase on a regular basis.

The survey was a self-assessment questionnaire that incorporated all sections and provisions of the EICC Code on labor, ethics, health and safety, and environmental practices. Eighteen of the 27 suppliers returned the survey, and all 18 responded with zero reports of noncompliance. This baseline assessment serves as a starting point for determining supplier performance and our future plans for other supply chain responsibility initiatives.

In 2015, as part of our Procurement team's future supplier engagement program, we plan to communicate our goals and expectations to our suppliers through a supplier code of conduct. The code will be modeled after the EICC Code of Conduct to incorporate all environmental, health and safety, and labor standards and practices. We are also looking at modifying our supplier scorecard to include a composite weighting scheme on sustainability indicators. This will provide information to help us identify areas where we can work with suppliers to strengthen their sustainability programs.

Auditing Existing Suppliers

To evaluate existing suppliers, JSR Micro conducts periodic on-site supplier audits using an assessment tool containing various quality elements. Each element receives a score based on the assessment made by JSR Micro auditors. In 2013 as part of our CSR supply chain initiative, we added a new element on environmental, social and governance (ESG) practices to the audit tool. During the reporting period, two raw material suppliers were audited and graded using the revised tool, and both were assessed with no gaps in ESG practices. Suppliers showing gaps in any of the elements audited are subject to corrective actions and follow-up visits from JSR Micro auditors to bring the supplier's performance up to par. All future on-site audits will use this audit tool, enabling us to assess and measure supplier ESG performance and improvement over time.

Evaluating Potential New Suppliers

JSR Micro has a comprehensive process for pre-screening and evaluating potential new raw materials suppliers. The process is primarily designed to evaluate the supplier in terms of reliability, quality of product and service, overall partnership, and assurance of compliance to rules and regulations. The initial assessment involves the completion of a new supplier selection/qualification checklist, which provides our assessment team with a comprehensive, constructive and objective view of the supply base and potential risks. The checklist contains questions to assess the supplier's quality systems and other aspects of its business including how it manages its environmental, health and safety system, and aspects of social responsibility. The checklist consists of questions that cover labor and human rights topics such as compliance to applicable laws pertaining to child labor, forced labor, maximum work hours, minimum wages and mandated employee benefits.

During the reporting period, we identified one raw material supplier with which to establish a new business relationship. We conducted due diligence and screened this new supplier on human rights in order to prevent potential negative impact prior to bringing the business on board as a new supplier. This due diligence process has become an integral part of our new supplier vetting process.

HEALTH & SAFETY

Customer Health & Safety

As a chemical company, JSR Micro places health and safety as our highest priority, and we understand that the safety of our products is the most important issue to customers and users. We are proud that we have never experienced a regulatory or non-regulatory health and safety compliance issue for any of our products.

Our Approach to Safe Product Use

JSR Micro maintains a staff of environmental, health and safety experts who evaluate chemical hazards, keep up with current and pending laws and regulations, and follow industry trends. The EH&S staff assesses the safety and environmental risks of all chemicals and their packages through all phases of the product lifecycle: from product design to small-scale R&D samples to commercial products. Employees follow strict internal procedures that are based on regulatory requirements and additional precautionary guidelines. Refer to the Risk Management Within JSR Micro section on page 22 for additional discussion.

"Worker safety directly contributes to JSR's overall business success; when people stay safe they are healthier. When you're healthy, you're happy. Happy people work better. Better work means more success!"

- Bret Gregorius
Chemical Operator 2

Ensuring Safety Through Product Labeling & Hazard Communication

In order to ensure the safety of our customers who use our hazardous and potentially harmful products, we communicate the chemical hazards and associated protective measures through our comprehensive safety data sheets and labels developed for all R&D samples and commercial products shipped to customers. JSR Micro's SDSs and labels meet or exceed the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standards.

The SDS is a grand sum of our safety and environmental assessments, and it includes environmental and health hazard information, composition information, safe handling instructions, recommended preventative measures, emergency response, proper storage, transportation and disposal methods, and regulatory information. EH&S employees regularly review and update this information to provide customers with the most current and accurate information available. JSR Micro has never had a chemical label or SDS noncompliance violation.

Because our chemicals are shipped all over the world, we ensure globally recognizable hazard communication by utilizing the Globally Harmonized System of Classification and Labelling of Chemicals. OSHA introduced the GHS in the US in 2012 and set a mandatory conversion completion date of June 2015. JSR Micro has completed the conversion of our SDSs and labels to the GHS format and announced the changes to all customers. Most of the products with the new GHS-compliant SDSs and labels have been shipped, and the implementation was completed in August 2014, well ahead of the OSHA deadline.

We also regularly coordinate and exchange information with our JSR Group counterparts in Asia and Europe, working together to make the safety information of our products readily available and easily understandable to all customers and users.

Providing Direct Customer Support

Our customers can contact us to ask questions or provide feedback about our products by accessing the contact information provided on all SDSs and labels. Our EH&S staff is readily available for direct customer support to provide detailed product composition data and any additional information on chemical regulations, hazards and handling methods beyond those required by regulation. Our hazard evaluation and communication system is regularly reviewed and audited by our customers and other third-party auditors. We track the feedback and recommendations received along with the associated responses and improvements within our corrective action workflow system, which supports the assessment of customer satisfaction related to product safety and labeling.


JSR Micro's EH&S Committee

Workplace Health & Safety

Just as we pay the highest attention to our customers' health and safety, we value our own employees' health and safety as our top priority. We view safety as a steadfast attitude and value and understand the tremendous impact a safe workplace has on the company's overall operational success.

We have spent many years establishing a robust safety system, to which all employees contribute and in which they participate. As a result, JSR Micro has an exemplary track record: We have maintained a work environment with zero chemical-related injuries since 2009. Nonetheless, we have opportunities for improvement to strengthen the safety mindset throughout the organization and address overall performance. Our current focus is on building a true safety culture that is nurtured and led by all employees' strong determination to keep the workplace incident- and injury-free.

Our Approach to Employee Health & Safety

JSR Micro has been OHSAS 18001:2007 certified since 2010. This internationally standardized health and safety management system has strengthened the foundation of our programs and supported our continual improvement efforts though processes such as hazard identification, goal setting, operational control, training, accident investigations, corrective actions, audits and management reviews.

The EH&S department, which is responsible for management of health and safety, works closely with multiple departments, including HR, to align efforts and fully embed safety throughout the organization. For example, new employees are required to attend safety training before starting work. In case of injury, the EH&S and HR departments coordinate to ensure that the employee receives proper medical attention as well as follow-up care such as physical therapy. Furthermore, starting in FY14, the HR department is always represented on the EH&S Committee, as discussed further on page 37).

Refer to the Promoting Health & Wellness section on page 58 for information on our programs to support employees' overall health.

Safety Risks & Health Hazards

The most significant safety risk chemical manufacturing companies can face is chemical-related injury; however, our diligent and comprehensive approach has enabled us to maintain a work environment with zero chemical-related injuries since 2009.

According to our annual health and safety risk assessments, ergonomic injuries have been our top safety risk since 2009 mainly because most employees are exposed to some kind of repetitive work every day. In past years, we deployed multiple companywide ergonomic improvement projects, which helped lower the ergonomic injury count in FY12 and FY13. In FY13, however, the number of other common workplace injuries such as slips, trips, falls and wrist strains increased. These incidents point to the need to improve our existing engineering and procedural controls, and further promote a safety-driven environment where employees put safety as their No. 1 priority and inspire others to do the same.

Our life sciences laboratory includes a biosafety level 2 room where agents posing moderate hazards to humans are handled. While no known infectious material (e.g., virus) is used in the lab, other potentially infectious materials (e.g., cells and serum) are handled for research and development purposes. The company protects our employees, their families and the community from potential harm through our comprehensive biosafety program, which ensures safe building and ventilation designs, safe equipment use procedures, lab access restrictions, proper emergency response measures, robust staff training, periodic medical monitoring and a free vaccination program among other safety controls.

Evaluating Safety Performance

JSR Micro understands that tracking, monitoring and taking action on recordable and non-recordable injuries, near misses and external audit/inspection findings are vital components of a successful injury-prevention program. In the history of JSR Micro, we have never had a significant injury or death that would require reporting to California OSHA. Other injury rates and performance measurements are regularly disclosed to key stakeholders. To prevent repetitive incident occurrence, relevant managers, supervisors and EH&S staff follow up on all corrective actions until the root cause is identified, preventative measures are taken and the effectiveness of the preventative measures is confirmed. We are planning to further improve upon our safety corrective action program to implement and communicate preventative measures more systematically and effectively throughout the organization.

"I have learned quite a bit since I first started using ErgoCoach, the software program that stimulates doing regular easy-to-do ergonomic excersises. I appreciate the care that JSR invests in their employees."

- Daiji Kawamura
Development Engineer 2

Engaging Employees in Safety

We believe that everyone at JSR Micro is responsible for health and safety. Opportunities for employees to participate in and contribute to health and safety management efforts include our behavior-based safety (BBS) program and the EH&S Committee.

The BBS program is an employee-driven safety reinforcement program in which employees observe each other and give praise for a safe act or provide constructive advice on an unsafe behavior. The program has helped the company build an interdependent safety culture. We will enhance this program in the coming years as a way to promote safety as a part of overall teamwork.

Established in 2001, the EH&S Committee plays a critical role in accident prevention and hazard communication. Its members are responsible for conducting monthly site inspections, serving as EH&S leaders within their departmental teams, rolling out new rules and procedures, and promoting CSR activities. The committee also integrates key learnings from the safety rounds into presentations for employees companywide.

The EH&S Committee is comprised of employees with diverse professional expertise from multiple departments. Employee representation is required from the departments with greater health and safety risks: Production, Warehouse, Engineering, R&D and Quality Control. Representation from the other administrative departments is rotated annually. In addition, the committee members are changed every year to enable more employees to participate. In FY12 and FY13, six employees served on the EH&S Committee each year as representatives for more than 60% of the total workforce.

ENVIRONMENTAL STEWARDSHIP

As a responsible company, we believe that our success depends on sustainable practices that protect the environment and conserve scarce natural resources. JSR Micro is keenly aware that all our business activities have direct and indirect impacts on the environment.

The key direct impacts occur through the energy, water and raw materials we use to run our operations and manufacture our products, and the greenhouse gas (GHG) emissions, wastewater and waste generated from those processes, as detailed in the following diagram.

Our Approach to Environmental Management

To demonstrate our environmental commitment, we maintain an ISO 14001:2004 certified environmental management system.

Our Environment, Health & Safety Policy states that:

- JSR will strive to implement necessary actions to protect the environment and its employees by preventing pollution, injuries and ill health.
- JSR will meet or exceed all applicable government requirements and voluntary requirements to which JSR subscribes.
- JSR will strive to continually improve our environmental, health and safety program by establishing and monitoring goals and objectives to improve overall performance.

Under this policy, we manage all safety risks and environmental impacts through the plan-do-check-act (PDCA) cycle shown in the diagram. This approach helps identify potential risks, gaps and challenges before they occur, so that we can establish mitigation measures, monitor performance, check the effectiveness of measures, and then incorporate learning into the next plans. The cycle repeats to ensure continuous improvement.

Overview of Environmental Impacts at JSR Micro (FY13 Results for Sunnyvale Facilities)

Consumption	Emissions & Waste
Energy 58,000 gigajoules	**Atmospheric Emissions[2]** GHG emissions: 3,040 CO_2e metric tons Sulfur oxides: <0.01 metric tons Nitrous oxides: 1.2 metric tons
Water Total: 8.6M gallons (32,600 m^3) Landscape irrigation: 4.6M gallons (17,400 m^3) Building: 4.0M gallons (15,200 m^3)	**Wastewater** 646,000 gallons (2,500 m^3)
Raw Material 641,700 pounds (291 metric tons)	**Waste** Landfill: 9,500 lb. (4 metric tons) Recycled: 373,200 lb. (170 metric tons) Hazardous waste: 245,600 lb. (111 metric tons)

Evaluating Our Environmental Performance

To evaluate and improve our environmental performance, we measure key impacts and set goals to achieve better results. We established 10-year targets to reduce GHG emissions, water usage and waste relative to FY08 baselines, a period that includes our FY12 and FY13 environmental performance. Most of the goals were achieved ahead of the FY18 target year; therefore, we established new goals at the end of FY13 for implementation in FY14. We followed an improved goal-setting strategy to establish SMART (specific, measurable, attainable, realistic and timely) goals within a more realistic time span (two years instead of 10 years), as listed on the next page. The targets are based on the projected reduction estimates in our future reduction plans. The new goals for GHG emissions and non-hazardous waste are intensity-based by unit of revenue, while the water goal remains tied to the absolute usage metric. We are evaluating opportunities for minimizing hazardous waste and will establish a new goal by FY15.

The materials industry landscape, with its nonstop technological developments and new diverse applications, changes quickly. Staying on top of these changes is key to our business success, and the new goals will help us to be more strategic in environmental planning and provide more flexibility to navigate through the ever-changing business requirements and associated environmental issues. The next page lists an overview of our environmental performance.

PDCA Approach to EH&S Management

PLAN
- Risk / impact assessments
- Regulatory and non-regulatory requirements identification
- Gap analysis
- Goal setting

DO
- Project plans and implementations
- Preparation and execution of procedures
- Training
- Emergency preparation

CHECK
- Performance monitoring and measurements
- Audits and inspections
- Investigations and corrective actions
- Record keeping

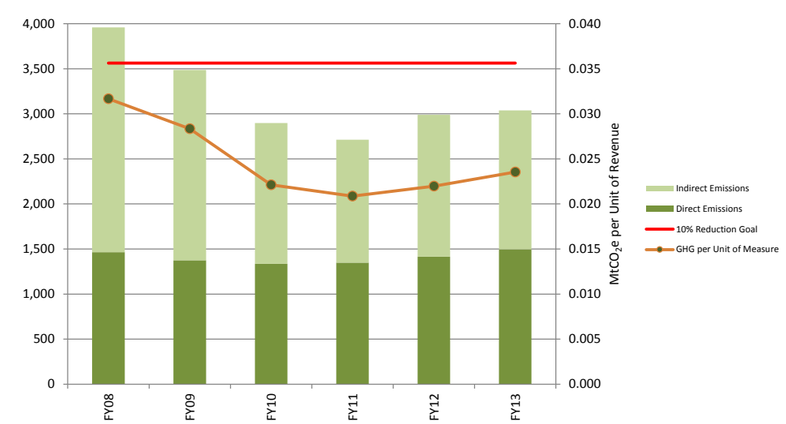
ACT
- Management review
- Feedback for continuous improvement
- Adjust and plan for further improvement

OUR ENVIRONMENTAL PERFORMANCE

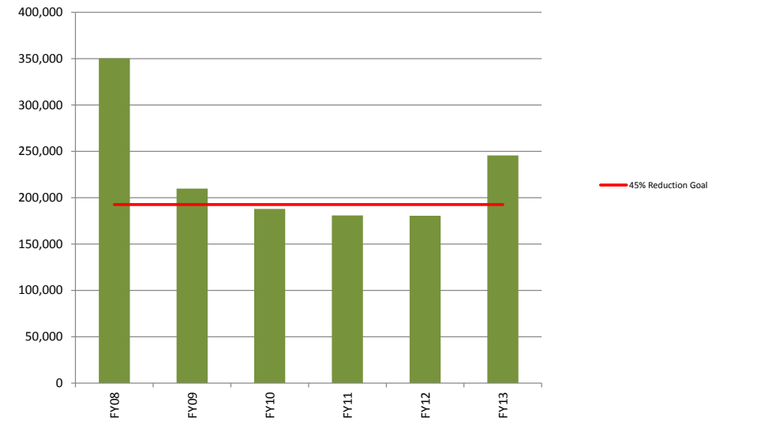
Environmental Performance Goals (Current and Future)[3]

Goals	GHG Emissions	Water	Hazardous Waste	Non-Hazardous Waste
Goals Through FY13	Reduce total GHG emissions by 10% from FY08 baseline level by FY18.	Reduce total water usage by 35% from FY08 baseline level by FY18.	Reduce total hazardous waste by 45% from FY08 baseline level by FY18.	Reduce total non-hazardous waste by 25% from FY08 baseline level by FY18.
New Goals Starting FY14	Reduce emissions per unit of revenue by 8% from FY13 baseline level by FY15.	Reduce total usage by 2.5% from FY13 baseline level by FY15.	Identify reduction opportunities and establish new goal by FY15.	Reduce the amount of non-hazardous waste per unit of revenue by 8% from FY12 baseline level by FY15.

GHG Emissions ($MtCO_2e$)



Hazardous Waste (lb.)[4]



Water Consumption (Gal)[5]

Non-Hazardous Waste (lb.)[6]

GREENING OUR OPERATIONS

Ensuring Environmental Compliance

At JSR Micro, compliance is the minimum standard we must meet, and it establishes the baseline of the company's credibility and reliability for our stakeholders. Internally, JSR Micro ensures compliance with all governmental and voluntary environmental, health and safety requirements through annual compliance audits; new process, equipment and chemical reviews; new or updated regulation monitoring; and inspections.

The company regularly undergoes external regulatory inspections by the Certified Unified Program Agencies operated under the California Environmental Protection Agency. There was no environmental violation or fine in FY12 or FY13, and JSR Micro has never had a hazardous substance spill that was significant enough to threaten human health, land or bodies of water.

Encouraging & Awarding Green Ideas

To promote companywide engagement in our environmental improvement initiatives, we gather suggestions for green improvements every year and reward the employees with the most innovative ideas. Through this Green Award program, 35 employees submitted 85 ideas in FY12, and 15 employees proposed 31 ideas in FY13. One of the implemented suggestions was reusing plastic bags to store internal samples, which saved 1,250 bags in the first year. Another employee idea was to install motion-sensor lighting in offices and conference rooms, a change that saves 5,020 kilowatt-hours (kWh) of energy per year. Many other employee ideas have been implemented or are slated in future improvement plans.

Building Green

In our first CSR report, JSR Micro discussed our plans to pursue LEED (Leadership in Energy and Environmental Design) Silver certification on new building construction to reduce our energy consumption and carbon footprint. And we accomplished that in March 2013 when our new 6,200-square-foot, two-story administration building (12,400-square-foot occupancy area) received LEED Silver certification from the U.S. Green Building Council.

During construction, we took measures to reduce environmental impacts wherever possible, such as maximizing pollution prevention; achieving a 90% recycling ratio for the construction waste; using 40% recycled content in the building material; and using low-emitting paint, floor finishes and wood. Additional green features include a new bicycle storage area, low-flow water faucets with sensors, controllable lighting, a permanent thermal comfort monitoring system and maximum daylight usage in all regularly occupied spaces. These installations and design decisions reduced theoretical water and energy usage from calculated baselines by 38% and 16%, respectively. Although the floor area of the new building is nearly three times as large as the 4,200-square-foot office trailer that the building replaced, the total energy and water usage in FY13 barely increased compared to the previous year because the new building is so efficient.

JSR Micro's LEED Silver Certified Building

Fireless Fire Extinguisher Training: Greener & More Effective

JSR Micro provided the annual fire prevention training with a digital fire extinguisher training system in FY12 and FY13, saving about 12 gallons of gasoline or 0.12 $MtCO_2e$ per year[7] and preventing the discharge of air pollutants from the fire, smoke and fire extinguisher. This training method is not only safer and cleaner, but also more effective because the system can assess whether the trainee is standing at an effective distance from the fire and aiming and sweeping the extinguisher correctly.

Becoming a Certified Green Business

To further demonstrate our environmental commitment, we choose to have our environmental program externally evaluated through the Bay Area Green Business Program, a founding member of the California Green Business Program that recognizes organizations for their environmental responsibility through compliance, resource conservation and pollution prevention. After passing a rigorous application, inspection and audit process, JSR Micro received the Bay Area Green Business certificate from the Mayor of the City of Sunnyvale in April 2013. The certification process provided multiple benefits by enabling us to review past improvements and identify additional improvement opportunities in our recycling program and water, energy and material usage.

A Value Chain Perspective on Environmental Impacts

We cannot talk about the true environmental impacts of our business without looking upstream and downstream. The Responsible Supply Chain Management section (page 30) discusses our approach to understanding environmental impacts and practices within our supply chain and our efforts to ensure that our suppliers maintain high environmental standards. The Innovation section (page 26) covers how our innovative materials and technologies help our customers conserve resources and energy.

BAY AREA GREEN BUSINESS
Environmental Values at Work

ENERGY & EMISSIONS

Energy Consumption Within JSR Micro[8]

Energy Consumption	FY12	FY13
Fuel consumption from non-renewable sources. (Natural gas to operate on-site boilers)[9]	28,100 GJ (26,600 Mcf)	29,700 GJ (28,200 Mcf)
Electricity consumption[10]	27,700 GJ (7,684,800 kWh)	28,300 GJ (7,859,000 kWh)
Total	**55,800 GJ**	**58,000 GJ**

GJ = gigajoules | Mcf = thousand cubic feet | kWh = kilowatt-hour

GHG Emissions[11]

GHG Emissions Indicators	FY12	FY13[12]
Total GHG Emissions (Scope 1 + Scope 2) in $MtCO_2e$	**2,990**	**3,040**
Direct GHG Emissions (Scope 1)	1,410	1,500
Energy Indirect GHG Emissions (Scope 2)	1,580	1,540
GHG Emissions Intensity		
Total GHG Emissions per Unit of Revenue in $MtCo_2e$	**0.022**	**0.024**

$MtCO_2e$ = metric tons of carbon dioxide equivalent

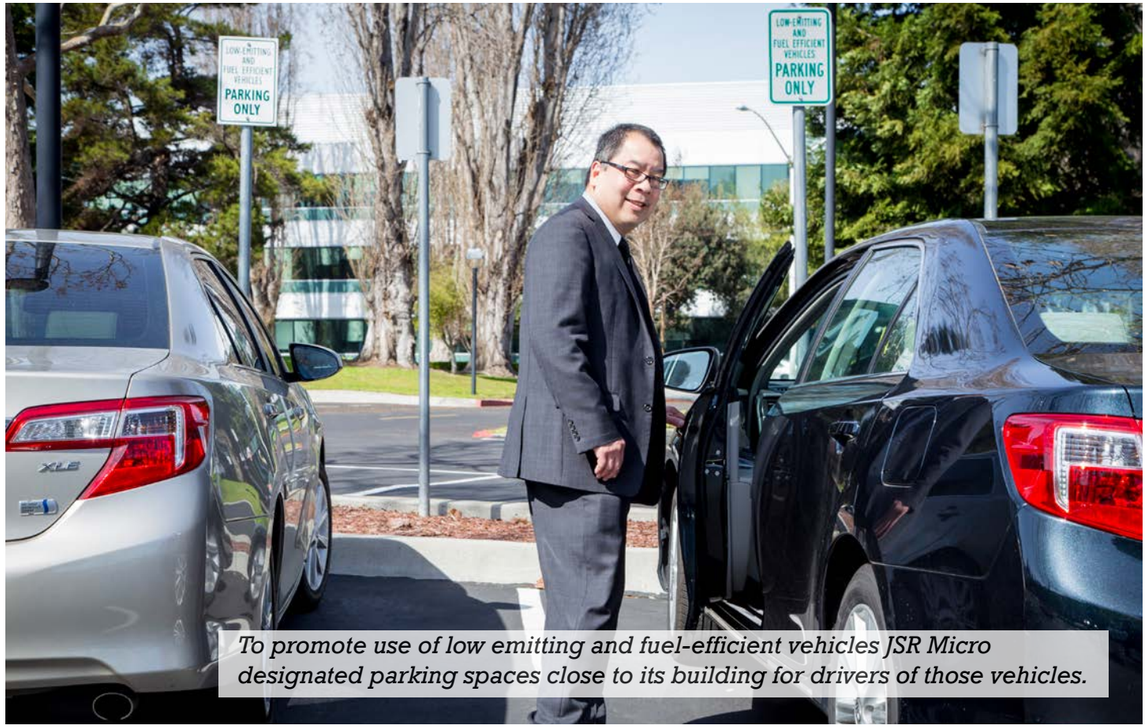
Focus on Energy & Greenhouse Gas Emissions

JSR Micro takes climate change and our responsibility to minimize our GHG emissions seriously. We strive to make a difference by identifying our daily activities that have significant carbon impacts and by planning and executing reduction initiatives.

The majority of our GHG emissions are generated through the use of natural gas and electricity to operate our plant, labs, warehouse and administrative facilities. These emissions are fully managed and controlled in accordance with applicable regulations set by the California Air Resources Board and the Bay Area Air Quality Monitoring District. At our current GHG emissions level, JSR Micro is not subject to any energy regulation or the mandatory GHG reporting and cap-and-trade program in California. The tables below report our energy consumption and the associated direct (Scope 1) and indirect (Scope 2) GHG emissions.

In FY12 and FY13, JSR Micro generated 2,990 metric tons of carbon dioxide equivalent ($MtCO_2e$) and 3,040 $MtCO_2e$, respectively. Regardless of the small increases in FYI 12 and 13, our GHG emissions levels stayed below our initial goal of a 10% reduction from our FY08 baseline, despite a facility expansion during that period. A combination of efforts, in particular our commitment to applying green building standards, contributed to our results, as described in the following sections. We will continue to focus on energy efficiency and conservation in our efforts to achieve our new GHG reduction goal.

Although we do not track other indirect GHG emissions (Scope 3) at this time, we have several initiatives in place to reduce the carbon impact related to product distribution and employee commuting, as described later in this section.



To promote use of low emitting and fuel-efficient vehicles JSR Micro designated parking spaces close to its building for drivers of those vehicles.

"JSR Micro is committed to going "Green" wherever possible. Sales personnel are now allowed the option of selecting a hybrid vehicle over a traditional gas-powered vehicle as their company car. The hybrid car demonstrates to our customers JSR Micro's commitment to the environment.

The benefits of having a hybrid car are about 50% fewer stops at the gas pump than previous and having the knowledge that you are helping to reduce the amount of pollutants going into the atmosphere."

- Rowland Wong
Regional Sales Manager

REDUCING OUR FOOTPRINT

Implementing Energy-Saving Projects

Within our Sunnyvale facility, we made various improvements to reduce electricity consumption and the related GHG emissions (Scope 2). The following table lists energy-saving projects in FY12 and FY13 and the estimated annual reductions in energy use and GHG emissions.

JSR Micro will increase operational efficiency wherever possible and reduce our footprint further in the coming years to meet the new 8% reduction goal per unit of revenue from FY13 baseline level by the end of FY15.

Estimated Annual Energy & GHG Emissions Reductions[14]

FY12 and FY13 Projects	Estimated Energy Savings per Year in GJ (kWh)	Estimated Indirect GHG Emissions (Scope 2) Reduction per Year in $MtCO_2e$
Replacement of air-cooled chiller for the warehouse with an energy-efficient one	30 (8,290)	1.6
Installation of motion sensors for light control in all offices and conference rooms throughout the facility	19 (5,020)	1.0
Server virtualization with upgraded server system and capacity throughout the facility	103 (28,650)	5.4
Total	**152 (41,960)**	**8.0**

Product Distribution

We ship our products by ocean freight and air both nationally and internationally. Because the carbon footprint of freight by water is much smaller than freight by air, we use ocean-freight shipping whenever possible.

Some of our products, however, require air shipment due to time and/or temperature constraints or customer requirements. In FY12 and FY13, efforts to maximize ocean freight reduced the GHG emissions associated with product distribution by 440 $MtCO_2e$ and 860 $MtCO_2e$, respectively[13].

Reducing GHG Emissions Beyond JSR Micro's Facilities

We are looking beyond our facilities at areas where we can work to minimize the environmental impact related to our operations. Two such areas are product distribution and employee commuting, which both hold opportunities for improvement.

Support for Green Modes of Transportation

Although JSR Micro does not currently track employee commuting mileage and associated GHG emissions, we promote greener transportation options for our employees.

We provide commuter checks and vouchers to encourage use of public transportation, and we offer FasTrak toll tags, which allow drivers to pay tolls electronically to avoid stopping, which minimizes emissions.

To support the use of electric vehicles, we have dedicated parking spaces and on-site charging stations. In addition we are planning to upgrade the current level I EV chargers (120 volts) to level II chargers (220/240 volts).

Furthermore, we are looking into a project that would provide company bicycles to encourage employees to bike, instead of drive, to get lunch or run errands in the neighborhood.

Within the company fleet that we maintain for our sales employees, we have begun to introduce hybrid vehicles as a way to reduce our carbon footprint further. At the end of FY13, 14% of the fleet had been converted.

JSR Micro will continue to look for opportunities to promote green modes of transportation.

"Breathing fresh air, driving safely, being physically active, and avoiding excessive traffic stress are the benefits of taking public transportation and steps toward to a healthy lifestyle. Thank you, JSR, for providing that benefits to us!"

- May Huynh
Process Engineer 2

"The commuter check program at JSR is a great incentive for me to take public transit to avoid the headache of being stuck in stop-and-go traffic in the Bay Area, while also being more green to the environment. It saves me time in the morning to relax and do some work on the bus as well."

- Joseph Shan
Process Engineer 1

WATER

Water Consumption

Water Consumption in Million Gallons (M^3)	FY12	FY13[15]
Total	**8.2 (31,000)**	**8.6 (32,600)**
Indoor Water Usage	3.7 (14,000)	4.0 (15,200)
Landscape Irrigation	4.5 (17,000)	4.6 (17,400)

Estimated Water Consumption Reductions

FY12 and FY13 Projects	Estimated Annual Reduction in Gallons (M^3)
Installation of low-flow regulators on all faucets, where possible	2,000 (8)
Replacement of toilets and urinals with low flush-volume models	17,000 (64)
(62% were replaced in FY12 and FY13.)	
Installation of an automatic flow-control valve on the bottle washer equipment	125,000 (470)
Training and posters to promote water conservation	NA
Total	**144,000 (542)**

Focus on Water Conservation & Pollution Prevention

As California continues to experience a historic multi-year drought, responsible water management is more critical than ever. All our water comes from the municipal water supply, which is managed by the City of Sunnyvale.

Water is an essential raw material in the production of our finished products and indispensable in our quality control processes. In addition, landscape irrigation consumes more than half of our water usage.

Mindful of local water shortages, we prioritized the reduction of water usage as a key objective. In FY12 and FY13, JSR Micro consumed 8.2 million gallons and 8.6 million gallons, respectively. Our water usage stayed below the goal of a 35% reduction from FY08 despite the new building installation (see the Building Green section on page 42) and less rainfall for the landscape.

Reducing Water Use

Responding to the statewide drought emergency, we looked hard at every reduction opportunity and executed as many changes as possible. The following table lists water reduction projects in FY12 and FY13 and the estimated annual reductions.

Planning Future Water Reductions

JSR Micro set a new water conservation goal to reduce usage by 2.5% from the FY13 baseline level by the end of FY15. Unlike the new reduction goals for GHG emissions and non-hazardous waste, the new water conservation goal is not measured by an intensity ratio because more than half our water is used for landscape irrigation, which is not affected by production levels.

JSR Micro will continue to work on both indoor and outdoor water conservation to meet the new goal in the next two years. We are planning to build on the success of the landscape project we implemented in 2009, which reduced annual irrigation water usage by about 30%. Our goal is to replace as much as possible of the remaining grass area with more drought-tolerant plants. Within our facilities, low-flow toilets and urinals have been effective in saving water, so we will continue to replace the remaining older models in FY14 and FY15.

Storm water pollution prevention drill

Water Pollution Prevention Initiatives

Our dedication to water conservation runs parallel to our commitment to ensuring the quality of the water discharged from the site. We have a comprehensive storm water pollution prevention plan and an industrial wastewater management plan.

In FY12 and FY13, we strengthened both plans with additional measures. For example, to improve the quality of the storm water discharged directly from on-site manholes to the San Francisco Bay, we scheduled annual cleaning on the manhole grate openings and catch basins to occur before the start of the wet season in October. The cleaning will prevent debris accumulated during the dry season from being carried to the Bay. We also placed covers on all our outdoor recycle/trash bins to minimize storm water pollution.

The primary source of industrial wastewater is the deionized (DI) water generated from our bottle washing and quality control activities. The DI water is acidic; therefore, we adjust the pH level on-site, which is the only treatment required to meet the local permit specifications for discharge to the Publicly Owned Treatment Works of the City of Sunnyvale. In FY12 we added a totalizer on the wastewater discharge pipe so that we can closely monitor the real-time industrial wastewater discharge volume separately from other wastewater generated from the facility (i.e., sewer waste). In FY13 we discharged 646,000 gallons (2,500 cubic meters) of industrial wastewater.

WASTE

Hazardous Waste by Disposal Method[16]

Year	Amount in Pounds (Metric Tons)	Disposal Method: Incinerated	Disposal Method: Other[17]
FY12	180,500 (82)	98.3% (177,550 lb. or 81 metric ton)	1.7% (3,000 lb. or 1 metric ton)
FY13	245,600 (111)	99.8% (245,000 lb. or 111 metric ton)	0.2% (600 lb. or 0.2 metric ton)

Non-Hazardous Waste by Disposal Method[18]

		Disposal Method		
Year	Amount in Pounds (Metric Tons)	Recycled	Municipal Landfill	Intensity (Pounds per Unit of Revenue)
FY12	285,000 (130)	96% (275,200 lb. or 125 metric ton)	4% (9,800 lb. or 5 metric ton)	2.1
FY13	382,700 (174)	97% (373,200 lb. or 170 metric ton)	3% (9,500 lb. or 4 metric ton)	3

Managing Hazardous Waste

Our daily manufacturing and R&D processes result in hazardous waste that must be managed according to applicable regulations. Under JSR Micro's hazardous waste management program, all chemical waste and chemically contaminated material waste are properly sorted, labeled, inventoried and shipped to certified hazardous waste treatment, storage and disposal facilities. All employees who might come in contact with hazardous waste are fully and regularly trained on proper handling and emergency procedures. Refer to the Workplace Health & Safety section on page 35 for additional information.

In FY12 we achieved the lowest hazardous waste volume since FY08, but the volume increased in FY13 due to an unexpected manufacturing plan change. As one of the most reliable manufacturing plants among JSR's global manufacturing sites, JSR Micro is flexible in accommodating changing business needs. This makes it challenging to predict future hazardous waste volume accurately and plan for total waste volume reductions. Nonetheless, we implemented reduction measures wherever possible in the past two years, including the following two initiatives:

- Streamlining our quality control procedures reduced chemical and chemically contaminated waste.
- A green cleaning policy implemented in FY12 led to the replacement of chemicals used to clean the facility with green cleaning products.

Finding further reduction opportunities will become more challenging as relatively easy steps have already been taken. Still, we will continue to seek effective conservation opportunities and set a new reduction goal by FY15.

Managing Non-Hazardous

Our approach to the management of non-hazardous waste is to maximize recycling and reduce waste through multiple strategies.

In FY12 and FY13, overall waste volume increased from previous years mostly due to the removal of a 4,200-square-foot office trailer. This one-time event generated metal and other miscellaneous waste, most of which was recycled. With the resource-conservation measures taken and planned, we expect that the non-hazardous waste volume will go down in the coming years.

Our new goal starting in FY14 is to reduce non-hazardous waste by 8% per unit of revenue from the FY12 baseline level by FY15. We are committed to finding ways to meet this new reduction goal.

MATERIALS CONSERVATION

Focus on Materials Conservation & Waste Reduction

JSR Micro uses materials in the production process that result in both hazardous waste and regular non-hazardous waste. Front-end material usage affects natural resources and local ecosystems while back-end waste is a source of GHG emissions and other environmental pollutants. We believe that we can reduce these environmental impacts at both ends by reducing the amount of new material purchased or used on the front end and carefully managing our waste streams.

Although not all reduction goals for total waste volume were met in FY12 and FY13 due to operational reasons described below, we are proud that all departments diligently identified many material conservation opportunities and implemented them quickly. We will continue to approach our reduction goals for hazardous and non-hazardous waste by emphasizing sustainable purchasing practices and optimization of our internal operations.

Maximizing Recycling

JSR Micro has a comprehensive recycling program in place: We divert paper, wood, glass, plastic, cardboard, drums and any other recyclable material from the landfill. In FY12 and FY13, we achieved recycling ratios (diversion rates) of 96% and 97%, respectively.

The inspections and waste assessments we received during the Bay Area Green Business certification process helped us identify many improvement opportunities. Although we recycle more than 96% of non-hazardous waste, the waste assessments revealed that our landfill bin still contained recyclable material, such as cardboard, paper, bottles and cans, which amounted to 5% of the total trash. In order to promote more thorough waste separation in the facility, we are planning to replace the current individual recycling bins with custom-made recycling receptacle centers, on which clear signs and educational information will be posted.

Conserving Resources to Reduce Waste

We are pursuing multiple strategies to reduce our material usage and subsequent waste, as described on the next page.

Replace Disposables With Durables

- In FY12 the use of Styrofoam cups was discontinued, and ceramic mugs with a company logo and a sustainability message were provided to all employees and made available to all visitors. As a result, approximately 25,000 Styrofoam cups per year were diverted from the landfill.[19]

- In FY13 we eliminated the use of disposable plastic forks, knives and spoons and paper plates and replaced them with durable and washable utensils and plates, diverting approximately 3,500 pounds or 1.6 metric tons of waste from the landfill per year.[20]

- Eighty-five percent of our bathrooms have air hand dryers instead of hand towels. By FY15 we expect to replace hand towels with air hand dryers in all our bathrooms.

Promote Sustainable Purchasing Practices

- In FY12 we established a sustainable purchasing policy in which JSR Micro set a target for at least 60% of the office consumables purchased annually to contain at least 10% recycled content. We converted office products such as office paper, corporate paper products, notebooks and toner cartridges to the ones containing 10% to 100% post-consumer or post-industrial materials wherever feasible and increased the green office product ratio from 29% in FY12 to 86% in FY13.

- Under the same sustainable purchasing policy, JSR Micro also made sure that 90% of the newly purchased lamps contain no more than 90 picograms of mercury per lumen-hour to reduce the toxicity of the lamp waste.

Reduce Material Usage

- In FY12 and FY13, the use of office paper was reduced by e-filing, e-documents, e-signature, e-faxing and consolidation of fax machines. Various departments are planning further e-conversions in coming years.

- Silicon wafers are used for product quality testing, and most of them are cleaned by a vendor, sent back to us and reused. In FY12 and FY13, we reduced the use of wafers by streamlining quality control processes.

- Because most of our products are hazardous and need to meet the packaging specifications in dangerous goods transportation regulations, finding the right approaches to reduce packaging material is challenging. Despite these constraints, we managed to reduce the use of packaging wraps by 336 pounds per year in FY13 without compromising the integrity of our packaging. We also started to reuse the black plastic bags that protect our photosensitive chemical samples from light during internal storage and reduced our usage by 1,250 bags per year in FY13. We are currently looking into whether we can reuse the Styrofoam used as a heat insulator in our incoming shipping boxes, which if feasible will be implemented in FY14 or FY15.

EMPLOYEE DEVELOPMENT & ENGAGEMENT

JSR Micro's employees are the key to the company's success. Only through successful engagement of our employees do we reach our goals. We engage employees by actively managing their ongoing development as well as by creating an enjoyable workplace. This section discusses our approach to these two sides of engagement and presents the key figures and indicators of our workforce.

Retaining Talent by Engaging Employees: An Interview with HR Director Phyllis Moracco

JSR Micro is like a tight-knit family. Employees are engaged on the job, as well as after business hours in volunteering and wellness activities. Despite being in the middle of technology-driven, opportunity-rich Silicon Valley, we maintain turnover rates at more than 15% below the Bay Area average. In this interview, HR Director Phyllis Moracco discusses some of the keys to JSR Micro's success in retaining a talented and engaged team.

Why do most JSR Micro employees tend to stay with the company?

There is not a single answer to that. JSR Micro has a strong culture that brings people together. We offer a very competitive compensation and benefits package, but more importantly we offer employees the opportunity to continue to learn and grow in their careers, which is important to most high-technology professionals. Why would they stay otherwise? Helping our people grow means helping the company grow.

How does HR facilitate this learning culture?

Individual development plans play a central role in this. To create the development plans, managers and employees work together to identify the training and skills that the employee needs and wants in order to advance within the company—either in the employee's current job family or somewhere else within the company.

In addition, employees' individual development goals are aligned with the overall strategy and purpose of the company. In this way, there is transparency in how each employee's individual efforts contribute to JSR Micro's overall success. There is no question about the value and impact of their work and performance to the company overall.

JSR Micro is an innovation company. To stay innovative, we need employees who are willing to learn and grow. Because this is so important to us, we include employee growth as a metric in our balanced scorecard.

Training and education must be an inherent part of this. How does the HR department meet employees' development needs?

In response to the individual development plans, performance evaluations and conversations with managers, we identify individual and group training needs. Over the years, we have developed a comprehensive catalog of learning opportunities. The offering is diverse: We support on-site classroom training, off-site training, desktop training, individual training for new managers, technical training, you name it. Also, our own subject matter experts deliver in-house training in their fields of study. Of course, there is also a lot of cross-training and on-the-job training that takes place every day in each department.

For employees who are going back to a university to finish their bachelor's or master's degree, or who want to learn a new technology or skill, we have an educational assistance program. The requirement is that the education is job-related or related to a function the employee wants to perform in the future. In return, we reimburse up to $5,000 a year for completing specific learning programs and achieving a certain grade.

You mentioned that the JSR Micro culture is an important part of the company's successful talent retention. Can you elaborate on that?

JSR Micro is a family-oriented company. Families tend to take care of each other, and that is also something you see at JSR. For example, we recently had a power outage on a Sunday. After being notified about it, six employees voluntarily came to our facility to check the status of our equipment or to lend a hand if we needed their help in getting the equipment back online. At the same time, JSR Micro invests a lot in the growth of our employees.

We have never had a layoff in our history despite the 2008 recession and the cyclical nature of the semiconductor industry. We care for our employees, and in return they support JSR Micro.

JSR Micro is also a very diverse company in terms of age, race, ethnicity and gender. This is partly a reflection of Silicon Valley's population and partly due to how the company has grown over the years. This diversity creates many opportunities for cross-pollination, which we actively foster by teaming up experienced engineers with new engineering graduates. Such pairings promote the transfer of very valuable technical knowledge and infuse new perspectives.

This is an organization of people who really want to improve, learn and grow. And finding new ways to keep them engaged is an ongoing challenge that keeps my work inspiring.

JSR Micro Employees

"The JSR Micro education assistance program had encouraged me to earn a Master's degree. The program makes my tuition more affordable. Working towards earning a degree and meeting my goals has already helped me advance my career even though I have not graduated yet."

- Jeff Kmiec
Development Engineer 1

Phyllis Moracco

WORKFORCE SNAPSHOT

FY13 JSR in Numbers

Contract Type	Male	Female	Total
Regular[21]	100	54	154
Temporary	4	2	6
Location			
Sunnyvale HQ	83	48	131
Other CA Office	2	3	5
Outside CA Office	15	3	18
Age			
Under 30	6	1	7
Age 30–50	63	30	93
Over 50	31	23	54
Race			
Asian	45	38	83
Black/African American	6	2	8
Hispanic/Latino	11	1	12
Other	38	13	51

Employee Turnover[22,23]

Year	Number	Turnover Rate
FY11	5	3.6%
FY12	6	3.9%
FY13[24]	12	7.9%

New Employee Hires[25]

Year	Number	New Hire Rate
FY11	15	11.8%
FY12	8	5.3%
FY13[26]	19	12.5%

CREATING AN ENJOYABLE WORKPLACE

Wellness & Volunteering

There is a "work hard, play hard" aspect to our culture, which acknowledges both how we strive for excellence and how we enjoy relaxing and having fun. Our wellness and volunteering activities help us feel connected as a team while doing something good for the local community and ourselves. Although some may view these as side activities, we are convinced that they are key to our engaged employee culture and success.

Throughout the year, the Wellness Buddies and Goodwill Hunters teams consult with employees to select and organize wellness and volunteering activities that they feel passionate about. The teams represent the whole company in terms of age, gender, ethnicity and work levels, making the identification of activities an inclusive process.

From the teams' recommendations, the company sponsors select activities as highlighted. In addition, we encourage the participation of family members for all activities, which fosters the family feeling that characterizes the JSR culture.

Many of our company-sponsored activities combine team building, physical fitness and support for charitable causes. One of our most anticipated events is the Summer Scamper for the Lucille Packard Children's Hospital, a fund-raising charity walk for adults and children, in which a team of JSR Micro employees and their families participate each year.

Promoting Health & Wellness

To support employees' health, we offer an on-site biometric screening program, which measures glucose, cholesterol, hypertension and BMI (body mass index) levels.

The anonymous metrics also help us track the effectiveness of our wellness activities. The screening program had a 68.9% participation rate in 2012, and we expect increased results for the second round of screenings scheduled in April 2015.

A full summary of our wellness activities can be found in JSR Micro's 2012 CSR report.

Charity walk for the Lucile Packard Children's Hospital

Volunteering at KQED Public Television

Spring

Clean the Beach
Collection of socks, blankets and outerwear for a nearby homeless shelter
Perfect Dog Rescue

Summer

Support for South Bay Blue Star Moms
Summer Scamper Charity Walk
Backpack Drive
KQED volunteering activity

Autumn

St. Anthony's Fund Drive
Salvation Army Food Drive

Winter

Adoptive and Foster Parent Association Toy Drive
Volunteering for toy distribution

Year-Round Wellness and Volunteering

Save the Bay's Native Plant Nursery

"At JSR, we are blessed. We like to share our blessings."

- Theresa Ramos-Duvon
HR Business Partner

"Healthy and attentive employees are key for good performance in the workplace. With its holistic mind-body approach, yoga not only offers physical exercise allowing for key body stretches but goes beyond into calming your mind to a more relaxed state. It is good for reducing ergo-related injuries too."

- Shalini Sharma
Senior Development Engineer

Yoga at the JSR Office

THE ROAD AHEAD

JSR Micro's key values and competencies—quality and innovation—are driving our CSR program. Developing the program has been less about learning new approaches than about looking at existing practices through a wider lens. It has brought key social and environmental aspects of operations into greater focus.

Through our efforts in previous years, the CSR program has become well-integrated in our management systems. It is now time to expand and leverage the program. In the coming period, we look forward to engaging with our employees more actively about sustainability, as well as working closely with organizations across our supply chain to spur continued improvements.

GRI REPORTING INFORMATION

Defining Report Content [G4-18, G4-26]

For JSR Micro's second reporting cycle, the CSR team updated the report content definition process to incorporate changes related to the GRI G4 Guidelines and make further improvements.

The team developed a list of potential report topics based on our previous materiality matrix, topics in JSR Corporation's and customers' CSR/sustainability reports, industry and sustainability trends, and industry standards such as the EICC Code of Conduct.

To assess the importance of these relevant aspects to stakeholders, the team conducted a survey of individuals from our key stakeholder groups: employees, business partners, customers, suppliers and the local community.

In addition, the impact of aspects on JSR Micro's operations was assessed by scoring the aspects with a fixed set of assessment criteria:

What is the potential financial impact to JSR Micro?

What is the potential competitive advantage to JSR Micro?

What is the potential impact to the long-term strategy of JSR Micro?

The team also interviewed selected stakeholders to add depth to the information gathered. With the resulting input, the team graphed the stakeholder and operational assessment results on a materiality matrix (page 18).

The threshold for a material aspect (topic) is that it has a medium to high priority for stakeholders and a significant (medium to high) impact on business operations. This threshold left out topics that we intuitively felt should also be included in the report due to their level of impact or importance to stakeholders. We therefore identified five topics as key relevant topics, which are covered in less detail than the material topics: Oversight of CSR, supply chain management, effluents and waste (non-hazardous), environmental impact of products, and materials/resource consumption.

The team finalized the list of material aspects and key relevant topics for review and approval by executive management.

Material Aspects & Boundaries [G4-19, G4-20, G4-21]

As part of the report content definition process, the team assessed whether the impacts related to the selected material topics occurred within the organization or outside it. The impacts of most aspects occur within JSR Micro. All aspects that do not fall under this definition are regarded as outside the boundaries of JSR Micro.

The table on the right lists the material aspects identified and their associated boundaries (where impacts occur for each material aspect: within the organization or outside it).

Changes in Report Content [G4-23]

The materiality assessment for the 2014 report resulted in some changes to the scope of the report (the topics covered) compared to the 2012 report. Several new aspects were added: quality management and operational excellence, business continuity and risk management, innovation, and supplier human rights assessment.

Diversity and corruption, while important areas, were assessed below the thresholds for material and relevant topics to be covered in the report. Nonetheless, they remain important areas that are closely managed within JSR Micro, through our affirmative action plan, code of conduct, mandatory training and other processes. Refer to our 2012 CSR report for additional information on these topics.

Material Aspects & Boundaries Overview

GRI Category/ Subcategory	Material Aspect [G4-19]	Boundary Within Organization [G4-20]	Boundary Outside of Organization [G4-21]
Social	Health & Safety: Employees	JSR Micro	
Social	Health & Safety: Customers	JSR Micro	Customers
JSR Micro topic	Quality Management & Operational Excellence	JSR Micro	Customers
JSR Micro topic	Business Continuity & Risk Management	JSR Micro	JSR Corporation Business Partners Suppliers
Environmental	Chemical Waste Management (Hazardous Waste)	JSR's research and manufacturing facilities*	Customers
Environmental	Energy & Greenhouse Gas Emissions	JSR Micro*	Suppliers Customers
JSR Micro topic	Innovation	JSR Micro	
Social/Labor Practices & Decent Work	Talent Retention Employment Training and Education	JSR Micro	
JSR Micro topic	Market Share	JSR Micro	
Environmental	Compliance	JSR Micro	
Environmental	Water	JSR Micro*	Suppliers
Social/Human Rights	Supplier Human Rights Assessment	JSR Micro	Suppliers

* The boundary of reported environmental impacts is limited to the plant, labs, warehouse and administrative facilities in Sunnyvale, California, where the majority of impacts occur.

External Assurance & Report Development

JSR Micro does not have a policy for external assurance, nor did JSR Micro seek external assurance for this report. Data relating to quality and environmental, health and safety are measured and monitored through our ISO 9001:2008, ISO 14001:2004 and OHSAS 18001 certified management systems. These certifications are subject to yearly review by independent external auditors.

In addition, we worked with a third-party firm, Concept Green LLC, a certified B Corporation that specializes in GRI reporting. Concept Green performed the Application Level Check for our first report. For this report, Concept Green assisted with the development and editing of the report and reviewed it to ensure that the disclosures fulfill the GRI G4 requirements for a report prepared 'in accordance' with the Core option.

In developing this report, the CSR team followed the GRI Principles for Defining Report Content to identify and prioritize the material aspects to cover in the report, as described in the Defining Report Content section that follows, and the GRI Principles for Defining Report Quality to ensure that the report provides a balanced and credible discussion of our CSR impacts and approaches to managing them.

Key Topics & Concerns Identified Through Stakeholder Engagement [G4-27]

As discussed in the Our Stakeholders section and summarized on the following page, we engage with key stakeholders on a regular basis. During on-site customer audits and review meetings, and in our customers' supplier scorecards and questionnaires, several trends related to CSR topics and concerns have emerged that influenced the development of our CSR program and the content in this report. Our customers are increasingly concerned about transparency on CSR impacts within our operations and in our supply chain. Many have adopted the EICC Code of Conduct and expect JSR Micro to manage risks and impacts in our supply chain in a similar manner. An area of particular concern for our customers is ensuring human rights protection with their supply chains; therefore, supplier human rights assessment was prioritized as a material aspect.

Lastly, avoiding the use of conflict minerals is a key issue within the electronics industry and for many of our stakeholders. Because JSR Micro does not use conflict minerals in our products, the topic was not assessed as material.

We believe that the disclosures in this report address our stakeholders expectations and concerns.

Engaging Our Stakeholders [G4-26]

EMPLOYEES

- Proactive open-door policy
- Quarterly employee meetings including Q&A sessions
- Employee satisfaction surveys
- Quarterly e-newsletter ("Focus In")
- Information sessions through brown bag lunches
- Intranet-based online forum ("Inside JSR")
- Departmental and staff meeting communications
- Internal feedback system through interdepartmental surveys
- Intranet-based suggestion box
- CSR employee survey
- Corporate ethics survey
- Ethics hotline

CUSTOMERS

- Customer report cards/ scorecards
- Management/Executive review meetings with customers
- Onsite customer audits
- Online dialogue with customers through company website
- Participation in social networking websites
- CSR and ethics webinars
- Completion of EICC code of conduct risk assessments
- Participation in industry tradeshows, seminars, and conferences
- Online CSR survey

COMMUNITY

- Employee volunteering in charitable activities
- Membership in sustainability focus group with neighbor companies
- Participation in charity fundraising events
- Partner with local universities to promote internship program
- Donate products, services, and used goods to nonprofit organizations
- Donations to charitable institutions with matching employee donation program
- Online CSR survey

INDUSTRY & TRADE ORGANIZATIONS

- Maintain leadership role within industry by excelling in innovation
- Maintain leadership role within trade organizations
- Participate in and contribute to industry and trade organization training programs

GOVERNMENT & REGULATORY AGENCIES

- Attend workshops and training programs
- Subscriptions to government/ regulatory newsletters
- Membership in environmental, health, and safety councils
- Onsite inspections and audits
- Partner with community advocacy groups

SUPPLIERS

- Assess suppliers' quality operating systems
- Routine supplier audits
- Administer supplier report cards
- Conduct business review meetings
- Online CSR survey

GRI CONTENT INDEX FOR 'IN ACCORDANCE' CORE

Materiality Disclosures Service

Through the Materiality Disclosures Service GRI verifies the correct location of general standard disclosures G4-17 to G4-27, in the GRI content index as well as in the text of the report.

General Standard Disclosures

G4 ID	Description	Page or Link	External Assurance	Direct Answer/Explanation for Omission(s)/Notes
		STRATEGY AND ANALYSIS		
G4-1	Statement from the most senior decision-maker of the organization.	President's Letter, page 6	No	
		ORGANIZATION PROFILE		
G4-3	Name of the organization.	About This Report, page 3	No	JSR Micro, Inc.
G4-4	Primary brands, products, and/or services.	Our Company & Stakeholders, page 10 Our Products, page 12	No	www.jsrmicro.com
G4-5	Location of organization's headquarters.	Our Company & Stakeholders, page 10	No	Sunnyvale, California
G4-6	Number of countries where the organization operates.	Our Company & Stakeholders, page 10	No	
G4-7	Nature of ownership and legal form.	Governance, page 11	No	Privately held corporation
G4-8	Markets served.	Our Company & Stakeholders, page 10; Our Products, page 12	No	

General Standard Disclosures

G4 ID	Description	Page or Link	External Assurance	Direct Answer/Explanation for Omission(s)/Notes
G4-9	Scale of the organization.	Our Company & Stakeholders, page 10	No	Reason for partial disclosure: Financial information is omitted because it is confidential; it is reported to internal stakeholders. As a private company and a wholly owned subsidiary of JSR Corporation, JSR Micro does not publish financial data, financial statements or the entities that are included in such statements. However, our parent company's annual reports include JSR Micro's performance. Refer to the Fine Chemicals and Other Product Business section of JSR Corporation's 2014 Annual Report (http://www.jsr.co.jp/jsr_e/pdf/ir/full.pdf).
G4-10	Employees by employment contract and gender.	FY13 JSR in Numbers, page 56	No	A substantial portion of JSR Micro's work is not performed by workers who are legally recognized as self-employed, or by individuals other than employees or supervised workers.
G4-11	Percentage of employees covered by collective bargaining agreement	GRI Content Index, page 66	No	No portion (0%) of the workforce is covered by collective bargaining agreement.
G4-12	Description of organization's supply chain	Responsible Supply Chain Management, page 30	No	
G4-13	Significant changes during the reporting period regarding size, structure, or ownership.	About This Report, page 3	No	New partnerships and joint ventures; Renovation of research laboratory in Sunnyvale (100% more employees); New JSR Micro life sciences research and development laboratory in San Diego, California, opened.
G4-14	Commitments: Explanation of whether and how the precautionary approach or principle is addressed.	Business Continuity & Risk Management/ Risk Management Within JSR Micro, page 22	No	
G4-15	Commitments: Externally developed economic, environmental, and social charters, principles, or other initiatives.	Commitments to External Initiatives, page 19	No	
G4-16	Commitments: Organization-level memberships.	Memberships in External Initiatives, page 19	No	
		IDENTIFIED MATERIAL ASPECTS AND BOUNDARY		
G4-17	List all entities included in the organization's consolidated financial statements or equivalent documents.	JSR Micro Inc.	No	-
G4-18	Process for defining report content and the Aspect boundaries.	Identifying Our CSR Priorities, page 18 Defining Report Content, page 62	No	

General Standard Disclosures

G4 ID	Description	Page or Link	External Assurance	Direct Answer/Explanation for Omission(s)/Notes
G4-19	List all the material Aspects identified in the process for defining report content.	Identifying Our CSR Priorities, page 18	No	Material topics are also listed with associated boundaries in the CSR Progress and Performance Summary table on page 17 and in the GRI Reporting Information/Defining Report Content section, page 63.
G4-20	Aspect Boundary within the organization for each material Aspect	Material Aspects & Boundaries, page 63	No	
G4-21	Aspect Boundary outside of the organization for each material Aspect	Material Aspects & Boundaries, page 63	No	
G4-22	Explanation of the effect of any restatements of information provided in earlier reports, and the reasons for such restatement.	About This Report, page 3	No	GHG emissions data recalculation for FY08 to FY11 did not have an effect on JSR Micro's overall performance trend or reduction plans. Updated data is reported in endote 8.
G4-23	Significant changes from previous reporting periods in the scope, boundary, or measurement methods applied in the report.	About This Report, page 3 Changes in Report Content, page 62	No	Changes in topics (report scope) are discussed in the GRI Reporting Information on page 62. No change occurred in the boundary for performance indicators.
		STAKEHOLDER ENGAGEMENT		
G4-24	List of stakeholder groups engaged by the organization.	Our Stakeholders, page 10	No	
G4-25	Basis for identification and selection of stakeholders with whom to engage.	Our Stakeholders, page 10	No	
G4-26	Approaches to stakeholder engagement.	Our Stakeholders, page 10 Engaging Our Stakeholders, page 65	No	
G4-27	Key topics and concerns that have been raised through stakeholder engagement.	Key Topics & Concerns Identified Through Stakeholder Engagement, page 64	No	
		REPORT PROFILE		
G4-28	Reporting period (e.g., fiscal/calendar year) for information provided.	About This Report, page 3	No	2012 and 2013 fiscal years (April 1, 2012 to March 31, 2014)
G4-29	Date of most recent previous report (if any).	About This Report, page 3	No	April 13
G4-30	Reporting cycle (annual, biennial, etc.).	About This Report, page 3	No	Biennial
G4-31	Contact point for questions regarding the report or its contents.	About This Report, page 3	No	Phyllis Moracco Human Resources Director Phone: (408) 543-8800 Fax: (408) 543-8873 Email: sustainability@jsrmicro.com JSR Micro, Inc. 1280 N. Mathilda Avenue Sunnyvale, California 94089 USA
G4-32	GRI Content Index: Table identifying the location of the Standard Disclosures in the report.	GRI Reporting Information, page 66	No	

Specific Standard Disclosures

Material Aspects (G4-19)	DMA and Indicators	Location and Notes	Omissions	External Assurance
		ENVIRONMENTAL		
Compliance	G4-DMA	Our Approach to Environmental Management, page 38 Ensuring Environmental Compliance, page 42		No
	G4-EN29	Ensuring Environmental Compliance, page 42 There were no environmental violations or fines in FY12 or FY13.		No
Effluents and Waste (Chemical Waste)	G4-DMA	Our Approach to Environmental Management, page 38 Ensuring Environmental Compliance, page 42 Managing Hazardous Waste, page 50		No
	G4-EN23	Hazardous Waste by Disposal Method, page 50		No
	G4-EN24	Ensuring Environmental Compliance, page 42 JSR Micro has never had a hazardous substance spill that was significant enough to threaten human health, land or water bodies.		No
Emissions	G4-DMA	Our Approach to Environmental Management, page 38 Focus on Energy & Greenhouse Gas Emissions, page 44		No
	G4-EN15	GHG Emissions, page 44		No
	G4-EN16	GHG Emissions, page 44		No
	G4-EN18	GHG Emissions, page 44		No
	G4-EN19	Estimated Annual Energy & GHG Emissions Reductions, page 46	Reductions are partially reported based on estimates (actual values are not available).	No

Specific Standard Disclosures

Material Aspects (G4-19)	DMA and Indicators	Location and Notes	Omissions	External Assurance
Energy	DMA	Our Approach to Environmental Management, page 38 Focus on Energy & Greenhouse Gas Emissions, page 44		No
	G4- EN3	Energy Consumption Within JSR Micro, page 44		No
	G4-EN6	Estimated Annual Energy & GHG Emissions Reductions, page 46	Reductions are partially reported based on estimates (actual values are not available).	No
Water	G4-DMA	Our Approach to Environmental Management, page 38 Focus on Water Conservation & Pollution Prevention, page 48		No
	G4-EN8	Water Consumption, page 48		No
		SOCIAL: HUMAN RIGHTS		
Supplier Human Rights Assessment	DMA	Supplier Human Rights Assessment, page 31 Our Approach to Supply Chain Management, page 31		No
	G4-HR10	Evaluating Potential New Suppliers, page 33 One new supplier was screened during the reporting period (100% of new suppliers).		No
		SOCIAL: LABOR PRACTICES & DECENT WORK		
Employee Health and Safety (Occupational Health and Safety)	G4-DMA	Workplace Health and Safety, page 35 For additional information on workforce programs that provide education, counseling and prevention related to non-occupational diseases (G4-DMA-b), refer to Promoting Health and Wellness, page 58.		No
	G4-LA5	Engaging Employees in Safety, page 37		No
Talent Retention: Employment	G4-DMA	Retaining Talent by Engaging Employees, page 54 G4-DMA-b: Our Approach to Supply Chain Management, page 31		No

Specific Standard Disclosures

Material Aspects (G4-19)	DMA and Indicators	Location and Notes	Omissions	External Assurance
	G4-LA1	Employee Turnover and New Employee Hires, page 56		No
Talent Retention: Training and Education	G4-DMA	Retaining Talent by Engaging Employees, page 54		No
	G4-LA9	Not Reported	JSR Micro is currently restructuring and integrating the systems that track training hours. In JSR Micro's next CSR report, we will report training hours and an updated goal.	No
		SOCIAL: PRODUCT RESPONSIBILITY		
Customer Health and Safety	G4-DMA	Customer Health & Safety, page 34		No
	G4-PR1	Our Approach to Safe Product Use, page 34 All chemicals and their packages are assessed.		No
	G4-PR2	Customer Health & Safety, page 34 JSR Micro has never experienced a regulatory or non-regulatory health and safety compliance issue for any of our products.		No
Product and Service Labeling	G4-DMA	Ensuring Safety Through Product Labeling & Hazard Communication, page 34		No
	G4-PR3	Ensuring Safety Through Product Labeling & Hazard Communication, page 34 Safety data sheets and labels are developed for all R&D samples and commercial products shipped to customers.		No
	G4-PR4	Ensuring Safety Through Product Labeling & Hazard Communication, page 34 JSR Micro has never had a chemical label or SDS noncompliance violation.		No
		NON-GRI MATERIAL TOPICS (DEFINED BY JSR MICRO)		
Business Continuity & Risk Management	G4-DMA	Business Continuity & Risk Management, page 22		No

Specific Standard Disclosures				
Material Aspects (G4-19)	**DMA and Indicators**	**Location and Notes**	**Omissions**	**External Assurance**
	EICC RA2 Risk Assessment (Number of High Risks)	Supply Chain Risk Assessment, page 23		No
Innovation	G4-DMA	Innovation, page 26		No
	Research Publications	Research Publications, page 27		No
Market Share	G4-DMA	Innovation & Market Share, page 27		No
	Market Share	Not reported	Performance indicator is omitted because it is confidential.	No
Quality & Operational Excellence	G4-DMA	Quality Management, page 24		No
	Total Cost of Quality as a % of Sales	Evaluating Quality Performance, page 25		No

ENDNOTES

1. In 2007, Cost of Quality was tracked per calendar year. In subsequent years it was tracked per fiscal year, in alignment with other business processes.

2. Although GHGs are the primary atmospheric emissions from our operations, a small amount of sulfur oxides and nitrous oxides are released during the testing or emergency use of our backup generator. Due to the low amounts at infrequent intervals, these air emissions are not considered a key environmental impact for discussion in this report beyond their overall management within our environmental management system.

3. This report establishes a new base year for environmental reduction goals. In the 2012 CSR report, we reported a 10-year goal period to achieve specific reductions in GHG emissions, water use and waste from a FY08 baseline. We met most of these environmental goals earlier than the due date and have therefore established a new set of environmental reduction goals for FY15 using FY12 as the new base year for the non-hazardous waste goal and FY13 as the baseline for the GHG emissions and water goals.

4. FY12 had the lowest hazardous waste level since FY08, but an unexpected manufacturing plan change contributed to an increase in FY13.

5. The base year for the initial 35% reduction goal was FY08; FY13 represents our new base year for measuring performance in relation to our new reduction goal for water consumption.

6. The increases in FY12 and FY13 are mostly due to the removal of an office trailer, most of which was recycled. The base year for the initial 25% reduction goal was FY08; FY13 represents our new base year for measuring performance to our new reduction goal for the amount of non-hazardous waste per unit of revenue.

7. The conversion factor was obtained from U.S. Energy Information Administration.

8. [G4-22] The emissions values for FY08 through FY11 were recalculated after the publication of our 2012 CSR report based on the emission factor adjustments made by PG&E; however, the adjustments did not have an effect on JSR Micro's overall performance trend or reduction plans. The base year for the initial 10% reduction goal was FY08; FY13 represents our new base year for measuring performance to our new reduction goal for GHG emissions per unit of revenue. GHG emissions restatements from data reported in the 2012 CSR report: FY08 increased from 3,700 $MtCO_2e$ to 4,000 $MtCO_2e$; FY09 remained 3,500 $MtCO_2e$; FY10 decreased from 3,400 $MtCO_2e$ to 3,500 $MtCO_2e$; and FY11 decreased from 3,300 $MtCO_2e$ to 2,700 $MtCO_2e$.

9. Fuel consumption from non-renewable sources excludes fuel used for company-owned vehicles.

10. JSR Micro does not generate any renewable energy; however, approximately 19% of our electricity purchased from PG&E is generated from renewable sources (based on PG&E's 2012 Electric Power Mix data available at pgecorp.com/sustainability/bu04_energy_future.jsp).

11. GHG emissions are calculated based on emission factors published in the PG&E Greenhouse Gas Emission Factors Info Sheet, last updated April 2013 and available at pge.com/includes/docs/pdfs/shared/environment/calculator/pge_ghg_emission_factor_info_sheet.pdf. The emission factor for FY13 is based on the CPUC GHG Calculator, which provides an independent forecast of PG&E's emission factors as part of a model on how the electricity sector would reduce emissions under AB 32, the California Global Warming Solutions Act of 2006. Emission factors for FY08 to FY12 are based on PG&E's third-party-verified GHG inventory submitted to the California Climate Action Registry (2008) and The Climate Registry (2011).

12. FY13 represents our new base year for measuring performance in relation to our new reduction goal.

13. The conversion factors were obtained from the report Smart Goods Transport by the Low-Carbon Leaders Project, an initiative supported by the UN Global Compact and WWF.

14. The energy savings were calculated based on the energy saved by the new installations using information from the manufacturers. The emissions calculation follows the method for calculating indirect GHG emissions, as described in endnote 11.

15. FY13 represents our new base year for measuring performance to our new reduction goal.

16. Source: the information on the disposal methods for hazardous waste was provided by our certified waste management contractor.

17. Other: Waste is treated using methods such as reduction, destruction, oxidation and precipitation, and the filtered solids are stabilized and disposed of in municipal landfills.

18. Source: The information on the disposal and recycling methods for non-hazardous waste was provided by our certified waste management contractor.

19. The calculation is based on the estimated number of Styrofoam cups used by employees and visitors per day multiplied by 260 business days.

20. The savings calculation is based on the waste audit report received from the City of Sunnyvale in 2013, which revealed that 30% to 40% of the trash picked up every week was plastic utensils and paper plates.

21. Regular describes employees who work under an indefinite employment status. All 154 regular employees work full time. JSR's total workforce is 160 employ-ees, including six temporary employees. Due to the low number of temporary employees, reported segments are for regular, full-time employees.

22. JSR Micro's goal is to maintain a turnover rate at 15% below national average. The average turnover rate in the U.S. is 18.3% (Source: Radford Survey).

23. Due to the small size of JSR Micro's workforce, segmentation of employee turnover data by age, gender and region is not calculated.

24. In FY13 a large number of employees decided to leave the Bay Area.

25. See note 23.

26. See note 24.

Acknowledgements

This report was made possible by the joint collaboration of many contributors. We would like to thank all of those who contributed and worked on creating this CSR report.

JSR Micro 2014 Corporate Social Responsibility Report

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