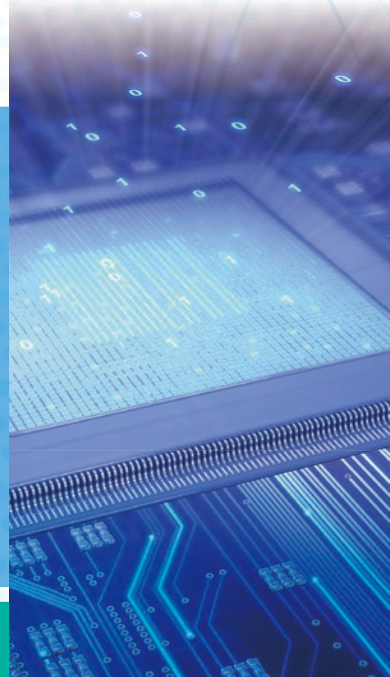
MATERIALS INNOVATION




JSR REPORT 2020

For the year ended March 31, 2020

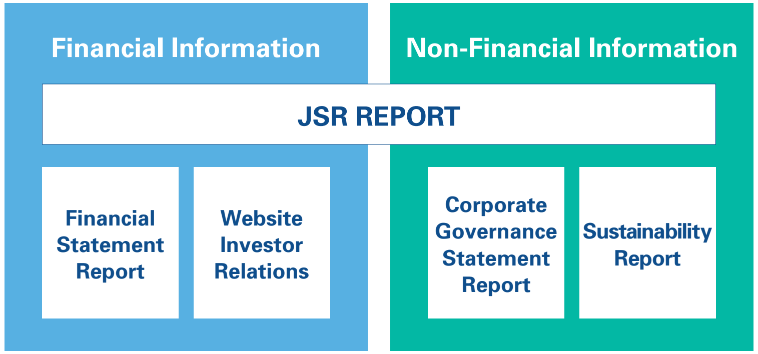
Contents

Editorial Policy

We are a company that delivers "sustainable growth" toward the future. Our corporate mission, "Materials Innovation," states that "We create value through materials to enrich society, people, and the environment." Based on this mission, we are building good relationships with various stakeholders in our quest to become a trusted and indispensable corporate citizen.

This report was created to help all stakeholders, including shareholders and investors, to better understand JSR Group's business model and corporate value. It contains financial information such as management strategies and non-financial information including matters relating to the environment and society, with reference to the disclosure framework of the International Integrated Reporting Council (IIRC) and the Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation. (Target period: April 2019 - March 2020)

Environment
Social
Governance
Guidance for Collaborative Value Creation



More detailed information is available on our website.
https://www.jsr.co.jp/jsr_e/

Forward-Looking

Statements regarding the Company's future plans, strategies, projected performance and outlook are based on information available at the time of writing. Readers are cautioned that economic trends in JSR's target markets and other risks, and factors beyond the Company's control could cause actual results to differ materially from those projected by management. In this report, Fiscal Year (FY) means the year ending March 31. For example, FY2018 means April 1, 2019 – March 31, 2020.

* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

CORPORATE MISSION

MATERIALS INNOVATION

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

MANAGEMENT POLICIES

Our efforts to realize the corporate mission of JSR Group are guided by a management policy consisting of two core components.
The first is a set of universal and unchanging “fundamental pillars of management” through which we work to achieve continuing growth.
The second is our “responsibilities to stakeholders,” which are an expression of our responsibilities as a good corporate citizen.

Fundamental Pillars of Management

Continuous creation of businesses

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

Enhancement of corporate culture

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

Increase in corporate value

JSR will position itself to increase our overall corporate value by creating businesses through materials that focus on customer satisfaction and the fulfillment of employees.

Responsibility to Our Stakeholders

Responsibility to our customers /business partners

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

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

Responsibility to our employees

All employees should expect:

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

Responsibility to society

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

- Responsible and respectful business practices (Responsible Care) that consider the environment and safety
- Support of environmental conservation by providing eco-friendly products
- Reduction of our environmental impact throughout the entire product life cycle
- Active contribution to conserving biodiversity throughout our business activities and the entire product life

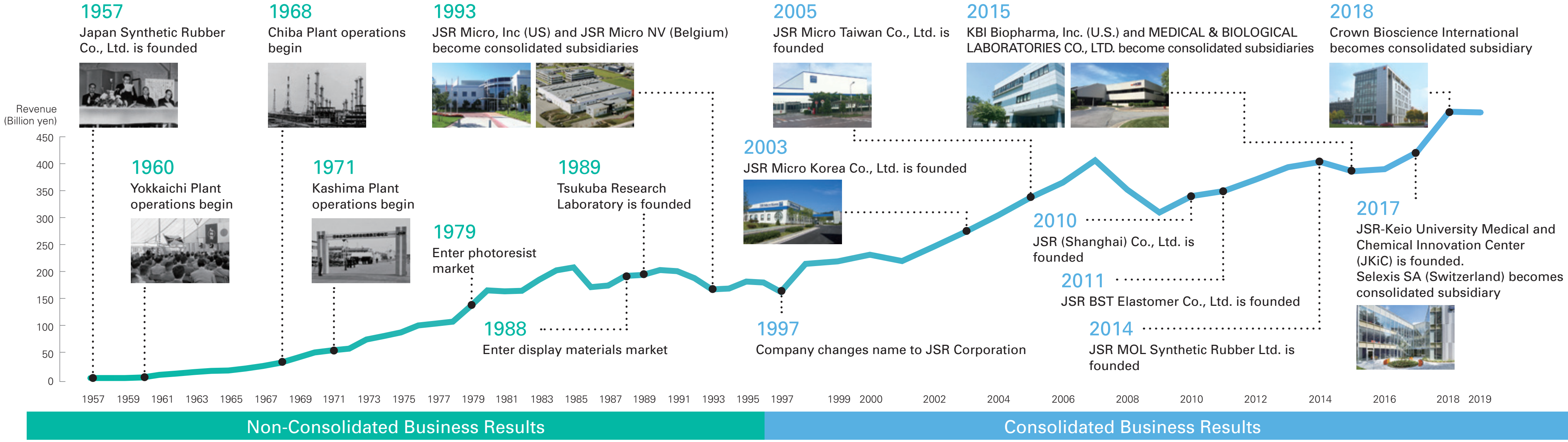
Responsibility to shareholders

Group will maintain its responsibility to shareholders by:

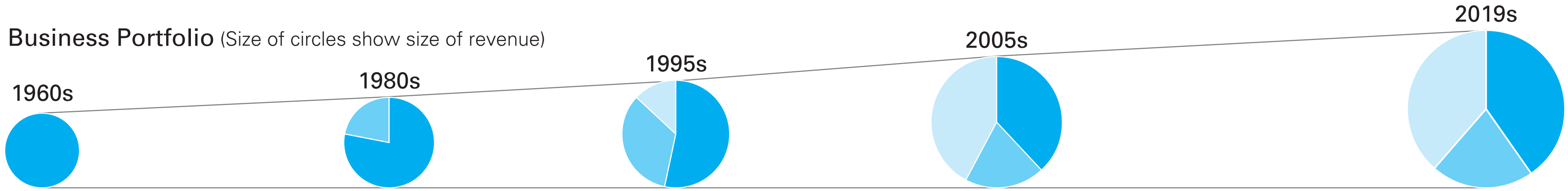
- Aiming to increase corporate value by creating business opportunities through materials
- Constantly enhancing management efficiencies
- Inspiring trust by being highly transparent and conducting sound corporate management practices

Track Record of Creating Value

JSR Corporation (formerly Japan Synthetic Rubber Co., Ltd.) was established in December 1957 under the Special Measures Law for the Synthetic Rubber Manufacturing Industry with the aim of pioneering synthetic rubber production in Japan. Since transitioning into a private corporation in 1969, JSR has expanded its petrochemical business from synthetic rubber to include emulsions, plastics and other materials, and has augmented business operations for the semiconductor, flat panel display and optical materials fields by leveraging proprietary polymer technologies. The promotion of the Fine Chemicals Business based on IT materials has served as a gateway to innovative changes to the Company's business structure and we changed our company name to JSR Corporation on our 40th anniversary on December 10, 1997. Recently, the previous Fine Chemicals Business was renamed the Digital Solutions Business to encompass a broader focus for new business opportunities. The Life Sciences Business was established as the third business pillar and is expanding its scale through various measures including mergers and acquisitions (M&A). A new company was established in the Plastics Business through merger. We will strive for continued, sustainable growth by focusing on increasing profits while also diligently facing challenges in each field of our business.



Changes in Business Portfolio (Size of circles show size of revenue)



■ Elastomers ■ Plastics/Fine Chemicals, Plastics ■ Fine Chemicals and Other Products (from FY1995), Digital Solutions, Life Sciences and others (FY2019)

INITIAL PHASE (1957-1973)	EXPLORATORY DIVERSIFICATION PHASE (1974-1990)	ACCELERATED DIVERSIFICATION PHASE (1991-2001)	BUSINESS ENHANCEMENT PHASE (2002-2010)	ACTIVATION TOWARD GROWTH (2011-)

Corporate Value Creation Process

The JSR Approach – Macro Trends

- Global Warming
- Population Growth/ Natural Resources
- Emerging Markets
- Digital Revolution

Our Strategies for Value Creation

Business Activities

M&A
Open innovation
Biochemistry

Precision manufacturing technology

Polymer technology

INNOVATION

MATERIALS

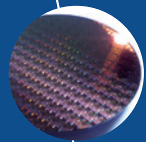
Create Sustainable Value through Materials

FY2019 Results (Output)

LIFE SCIENCES BUSINESS P.20

Revenue **50.5** billion yen

Support for the process of drug discovery and providing in-vitro diagnostic and research reagents



DIGITAL SOLUTIONS BUSINESS P.16

Revenue **144.8** billion yen

Providing cutting-edge semiconductor materials and display materials

ELASTOMERS BUSINESS P.22

Revenue **178.8** billion yen

Providing solutions for automobile parts such as tires

PLASTICS BUSINESS P.24

Revenue **95.1** billion yen

Providing high-performance ABS for automobile parts

Management Foundation

Strong Financial Foundation P.28	Global Network P.29	Evolving Technical Capabilities P.34
Environment P.36	Human Resources P.39	Corporate Governance P.42
Compliance P.52	Risk Management P.53	Supply Chain Management P.54

Resilience and Sustainability P.8

Corporate Mission P.2

The JSR Approach – Aiming to be a Truly Global Company

Providing Value to Society (OUTCOME)

JSR contributes to society through customer companies.

Contributions to customer companies

- Meeting customer needs, providing solutions, contributing to technological innovation
- Contribution to product safety taking into account everything from raw materials to finished products
- Contributions to manufacturing processes through efficient resource use

Contributions to society

Contributing to quality of life and well-being

- Achieving a smart (AI,IoT) society
- Achieving high-speed communications
- The spread of 4K and 8K TV
- Achieving comfortable mobility

Contributing to a society of health and longevity

- Shortening the drug discovery period
- From treatment to prevention
- Promoting personalized medicine

Contribute to Global Environmental Conservation

- Efficient energy use through improved tire performance
- Achieving a recycling-oriented society through mono-materialization

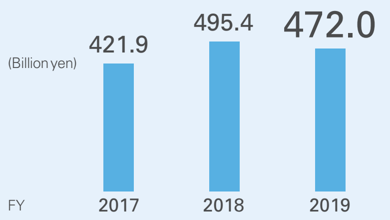
SDG Contributions

FY2019 Financial & Non-Financial Highlights

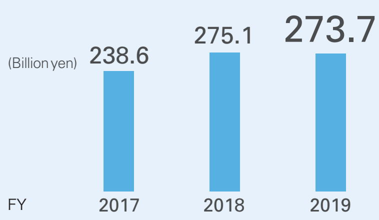
Financial Information

Financial Capital

Revenue



Overseas Revenue



Operating Profit
(% against total revenue)

32.9 Billion yen
(7.0%)

Profit, Attributable to Owners of Parent

22.6 Billion yen

Dividend Payout Ratio

57.5%

Capital Expenditure

45.9 Billion yen

ROE

5.7%

Non-Financial Information

Human Capital and Intellectual Capital

Number of Employees
(Group consolidated basis)

9,050
(As of March 31, 2020)

Percentage of Women in Managerial Positions

4.3%
(JSR Corporation, as of April 1, 2019)

Employment Rate of Individuals with Disabilities

2.38%
(JSR Corporation)

R&D Expenses

25.4 Billion yen

* Whole JSR Group, including contract research expense of goods purchased.

Number of Patents Held

6,670

Number of Workplace Accidents

JSR Corporation	1(0)
Manufacturing Partners of JSR or Group	0(4)
Group Companies in Japan	3(4)
Manufacturing Partners of Group Companies in Japan	2(3)

* Number of non-working accidents in brackets.

Social and Relationship Capital

Global Network

Japan
32 locations

Overseas
41 locations

* Including JSR headquarters, main production and R&D sites and 23 Group companies.

Natural Capital

Greenhouse Gas (CO_2) Emissions

973
kt-CO_2

* JSR Corporation, Group companies in Japan and other countries in total, Scope 1 + Scope 2.

Basic Unit of Energy Consumption

0.38
kL/ton

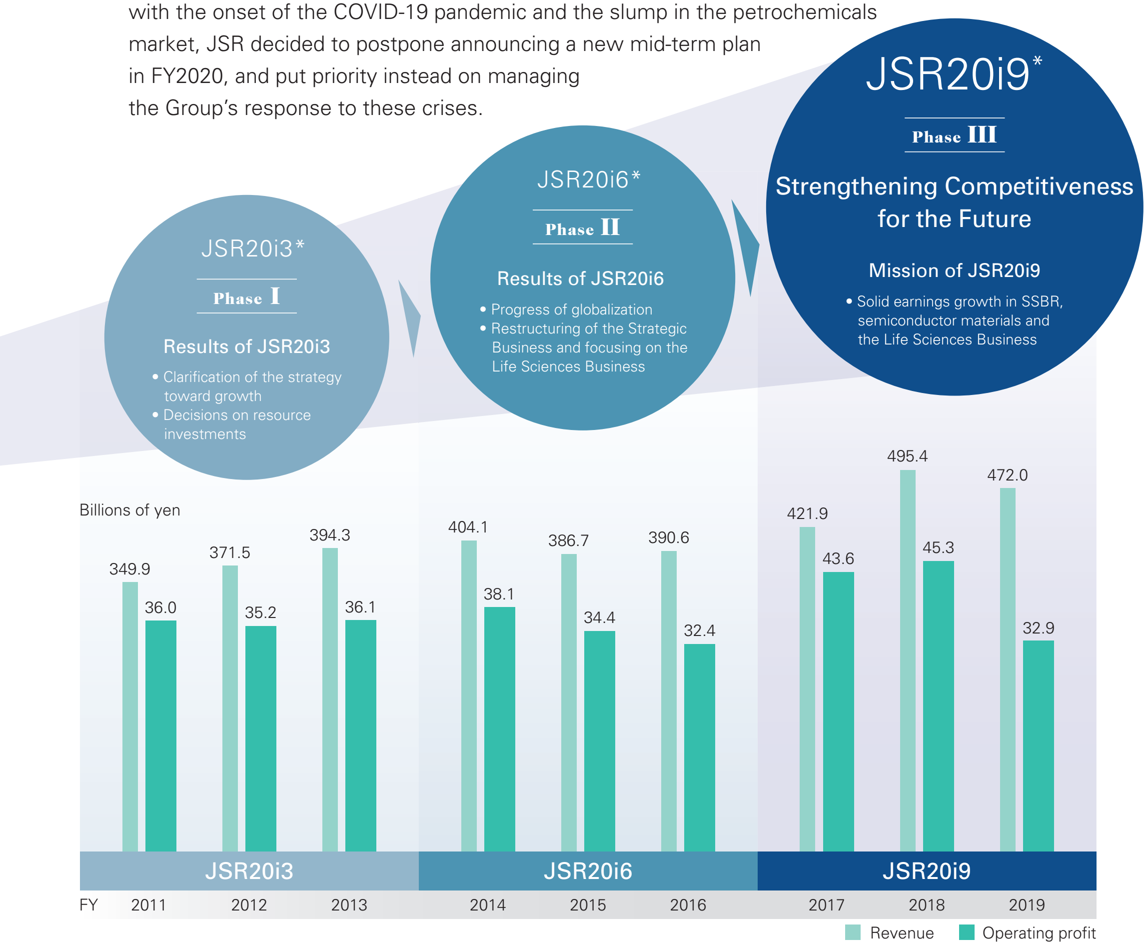
* Only for JSR Corporation. 0.18 for Group companies in Japan and 0.48 for Group companies in other countries.

* Since FY2017, JSR has prepared consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) under the stipulations of Article 120, Paragraph 1 of the Corporate Accounting Regulations.
* For FY2018 and FY2019, total amounts for ongoing businesses are shown.

Mid-Term Business Plan and Sustainability Challenge

Mid-Term Business Plan Review

The JSR20i9* Mid-Term Business Plan, whose three-year period started from the fiscal year ended March 31, 2018 (FY2017), was positioned as a time for "strengthening competitiveness for the future." Initiatives under the plan resulted in increased sales of cutting-edge photoresists and other products in the Semiconductor Materials Business and the establishment of the Life Sciences Business as a third core business, while in the Elastomers Business, sales of strategic solution styrene-butadiene rubber (SSBR) outpaced growth in the market. JSR began formulating a new mid-term business plan to succeed JSR20i9, with a view to achieving the long-term vision for 2050, namely, to "fulfill our responsibilities to stakeholders through sustainable future growth." However, with the onset of the COVID-19 pandemic and the slump in the petrochemicals market, JSR decided to postpone announcing a new mid-term plan in FY2020, and put priority instead on managing the Group's response to these crises.

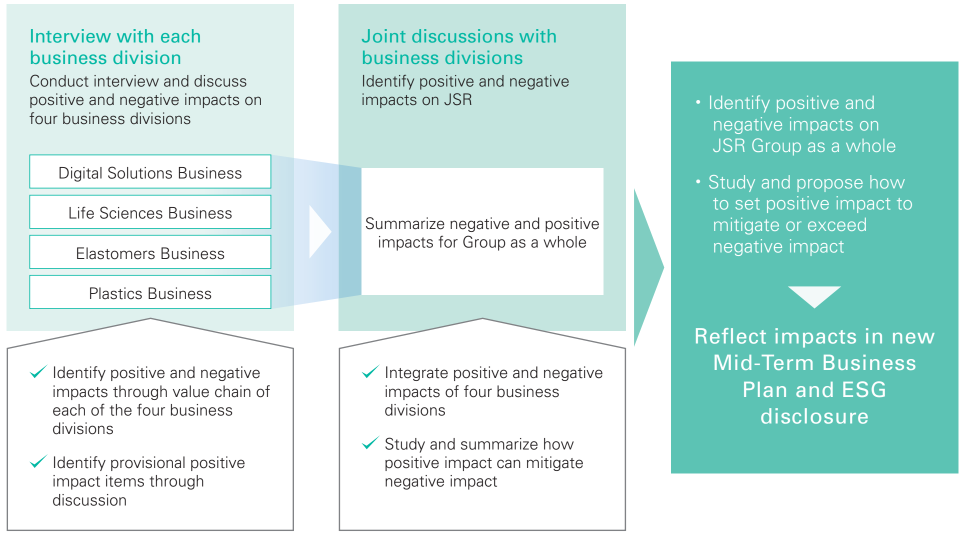


Sustainability Challenge

For the new mid-term business plan, JSR is considering a reassessment of its priority issues (materiality). In reviewing materiality, based on points raised in discussions with experts conducted in 2019, the Group is recategorizing its material issues into "business activities" and "management foundations." With regard to business activities, the JSR Sustainability Challenge was undertaken to identify positive and negative impacts on society.

In the JSR Sustainability Challenge, hearings were conducted to grasp the positive and negative social impacts of each of the Group's four business segments. An interim report was generated, incorporating the positive and negative impacts identified. Based on these findings, a joint workshop for all business segments was held to discuss which negative impacts should be reduced and which positive impacts should be reinforced while envisioning the future ideal shape of the Group. The Group is also working to develop, as far as possible, quantitative measurements for both positive and negative impacts. JSR is also preparing to address priority issues related to the management foundations in a similar way.

Implementation Process for "JSR Sustainability Challenge"



* The "i" in "JSR20i3" (twenty-thirteen), "JSR20i6" (twenty-sixteen) and "JSR20i9"(twenty-nineteen) emphasizes the "Innovation" to realize Materials Innovation, which is the heart of our corporate mission.

JSR Sustainability Challenge

JSR Group impacts society in various ways, from the sourcing of raw materials to manufacturing by customer companies, uses in the market, and product disposal. Under the current Sustainability Challenge, the Group closely reviewed each stage of operations from upstream R&D to downstream product disposal, looking at impacts in terms of climate change, resource recycling, digital transformation, and health. The positive and negative impacts of business activities identified in the review are summarized in the figure below. With a view to integrating these results into the Group's future development, JSR is formulating a long-term vision for 2050. By focusing on contributing to the three areas of quality of life and well-being, a healthy and long-living society, and global environmental conservation, the Group will pursue sustainable future growth and fulfill its responsibilities to stakeholders.

Negative impacts

Raw materials → Suppliers → Procurement and distribution → R&D → Production → Sales & Production at customers → Use of product in market → Product disposal

Animal testing

Life Sciences

- ✓ Request for regulatory compliance from pharmaceutical companies
- ✓ Mounting ethical demands from society

see page 21.

CO_2 emissions

Elastomers

- ✓ Thermal energy required in the petrochemical industry, which makes it difficult to shift to renewable energy

see page 23.

Plastic waste disposal

Plastics

- ✓ Negative attention after G7 adoption of the Ocean Plastics Charter in 2018 Increasing calls for circular economy initiatives

see page 25.

Materials facing tighter regulations

Semiconductor Materials | Display Materials | Plastics

- ✓ Tighter regulations due to potential negative impact on human health
- ✓ Demands to shift to alternative materials

see pages 17, 19 and 25.

Solvents

Semiconductor Materials | Display Materials

- ✓ Used in our manufacturing processes and customer sites

see pages 17 and 19.

Positive impacts

Digital Solutions

see pages 17 and 19.

Semiconductor Materials

Reduce semiconductor power consumption while improving nanotechnology to contribute to a smart society including IoT, AI and 5G

JSR's cutting-edge semiconductor materials can achieve miniaturization and high performance with less power. Adopting a higher performance GPU is expected to reduce power consumption by 280 times.

Display Materials

Possible to reduce LCD TV power consumption 30% by boosting display brightness and low-temperature curing

As the No. 1 global supplier of alignment films for high-performance displays, JSR is poised to reduce power consumption for displays around the world.

Life Sciences

see page 21.

Improve drug development success rates and shorten development timeline for customers

Through our contract development and manufacturing organizations (CDMO), timeline from drug discovery through mass production to approval of human clinical trials can be shortened from 12-24 months to 9 months.

Elastomers

see page 23.

JSR Group products help offset greenhouse gases emitted by manufacturing processes by more than double through products that reduce greenhouse gas emissions within society

With JSR's unique SSBR for fuel-efficient tires, reduction in CO_2 emissions from automobiles is expected to be 2.7 times greater than CO_2 produced during the manufacturing process.

Plastics

see page 25.

Promoting mono-materialization aimed at reuse of plastic resources

Contributing to customers by incorporating new materials to convert composite materials to mono-materials.
Easy recyclability and reduction of environmental burden by eliminating coatings for brightly colored materials, reducing the need for solvents.
JSR is proposing a 50% weight reduction while maintaining rigidity.

Social value created by JSR through positive impacts

Contribution to quality of life and happiness

- ◆ Realization of a smart society (AI, IoT)
- ◆ Realization of high-speed communications
- ◆ Spread of 4K/8K TV
- ◆ Realization of comfortable mobility

Contribution to a healthy and long-living society

- ◆ Shortening the drug discovery and development timeline
- ◆ From treatment to prevention
- ◆ Supporting the future of personalized medicine

Contribution to preservation of the global environment

- ◆ Efficient use of energy
- ◆ Bringing about a recycling-oriented society

Message from the CEO

With a focus on “resilience” and “sustainability,” the JSR Group will join together to increase corporate value.

Representative Director, CEO
Eric Johnson

Open Communication

One of my favorite phrases is the Japanese idiom *ichigo ichi-e*, which means roughly “a once-in-a-lifetime encounter.” In management as well, I am always conscious of the value of encounters and the communication that makes them possible. I became the CEO of our Group in June 2019. Until then, I had deep experience mainly in the Semiconductor Materials and Life Sciences Businesses, but not much experience in other areas such as Elastomers or Display Materials. So, for the first year after assuming the position, my priority was communicating closely with people in the field in order to deepen my grasp of business areas I hadn’t previously specialized in. I was especially focused on listening and understanding our situation. I made sure the communication lines were open with the highly capable people in each of our divisions, and that their thoughts and opinions were reflected in our management decisions. This is something I continue to do. Since February 2020, even after the spread of COVID-19 made it impossible for me to travel to Japan and direct things in the field in person, we continue to conduct these exchanges using video conferencing and other tools. Communication is more important now than ever.

Responding to the COVID-19 Pandemic and a Post-COVID-19 Mindset

Even before the current pandemic, the board had multiple discussions about how to respond to global crises. In fact, in FY2019, growing geopolitical risks were already starting to raise concerns about disruptive pressures with regard to our business sites and supply chains worldwide. Then the first reports of COVID-19 outbreaks came out in January 2020. Recognizing that we didn’t have a moment to lose in addressing the crisis, we set up a Response Management Team to take appropriate and prompt action. Since the center of the outbreak was initially in Asia, we first put measures in place specific to each country. But as COVID-19 began to spread globally, we upgraded to a Global Response Team. In this way, we succeeded in getting a system up and running in the early stages and quickly addressed the crisis across the entire Group. In addition, we created the

"JSR's Responses to COVID-19" section on our website where we can share information in a timely manner with our customers, shareholders, business partners, and other stakeholders, and cooperate throughout the Group.

Also, as part of our business continuity management efforts, we began holding regular Business Continuity Plan meetings. Management, including directors, participate in these meetings, and we decided on the following specific measures:

- Coordinate regional pandemic information
- Monitor cases of infection, if any, among Group employees
- Confirm the operating status of each business site and consider needed measures
- Announce a system for working from home
- Take measures to ensure the safety of employees stationed abroad and their families

We are also working to minimize the impact of the pandemic on production, R&D, logistics, and other Group business activities.

Since July 2020, attention began to turn to a "post-COVID-19" world and the "new normal," and economic activity has resumed gradually. This means shifting out of the crisis mode of the past few months and into a new global situation. For us as well, responding to this new situation means we have to move beyond the stage of easing the shock of the crisis and mitigating its impact, and into the stage of transforming into an organization that can adapt to these changes. In other words, instead of simply running around dealing with immediate concerns, we have to take a longer view, and shift our awareness toward future strategic growth. If we can embrace the new situation as a growth opportunity, it can be the ideal time to move toward becoming the company we ought to be. I intend to pursue an assertive management approach, without becoming pessimistic.

Mid-Term Business Plan

Our business activities in FY2019 were affected by the pandemic, although the degree of the impact varied between divisions. The Elastomers Business and Plastics Business remained sluggish, largely due to a slump in automotive production in the midst of the economic slowdown that carried over from last year, as well as a drop in sales prices linked to worsening markets for raw materials. This situation was exacerbated as the COVID-19 pandemic caused widespread suspension or reduction of auto production, exerting significant downward pressure on sales. On the other hand, Semiconductor Materials were unaffected by the pandemic, while Life Sciences, which had also suffered only minor fallout from the 2008 global financial crisis, was largely unaffected this time around as well.

Regarding our management policy going forward, there will be no change in our strategy of positioning Semiconductor Materials and Life Sciences as pillars of growth. In Display Materials and Plastics, in which we have made significant investments, we will focus on asset efficiency and on improving profitability. Although Elastomers has typically followed a pattern of ups and downs, I think we need to dispel the perception that it will recover along with the economy as it has before, and make the structural reforms needed to generate consistent profits. It can't just be business as usual–we need to explore a variety of more radical measures.

Given continuing uncertainties about the outlook for market conditions in the midst of the pandemic, we took the opportunity to issue corporate bonds to secure our cash position. We will continue to steer the company while monitoring the balance sheet closely.

Guided by these policies, we are currently formulating a new medium-term business plan starting from FY2020. The new plan positions the Semiconductor Materials and Life Sciences Businesses as growth drivers and has adopted organizational "Resilience" and "Sustainability" as our corporate growth slogan. In line with this, starting with this business plan we are considering incorporating clear evaluation standards that include in their targets, not only financial numbers such as ROE, but also a sustainability-related index. We plan to announce sales and operating income targets as soon as we can, to forecast, to some extent, the impact of COVID-19.

Resilience and Sustainability

In a fast-changing world full of unprecedented uncertainties, organizational resilience and sustainability are more important than ever in carrying forward our business activities and increasing corporate value. As a maker of chemicals, JSR has always put particular emphasis on CSR activities such as Responsible Care. It is also fair to say, though, that these activities have been in a sense secondary, supporting the core business from a risk management perspective. Under the "Resilience" and "Sustainability" slogan, the Group is working together to further develop these activities, aiming to achieve sustainable growth and become a truly global company.

First, in terms of resilience, we are seeking to drive our businesses while building an organizational structure that is resilient to various kinds of crises, including the current pandemic. To this end, to ensure multilayered management functionality, we established a North American headquarters to manage our global Life Sciences Business as well as our U.S. Semiconductor Materials operations. In addition, to prepare for the possibility of a shutdown at an overseas production site due to COVID-19 or similar crises, we continuously ensure that we have redundant supply capability based on production backup between sites. From 2020 onward, as part of the Group's Digital Transformation efforts, we plan to review our business processes, update our enterprise resource planning system, and set up processes that allow us to make efficient, timely management decisions. In our production activities, we plan to renew aging production facilities as well as absorb and merge companies in the engineering group. By incorporating these functions, we aim to boost the efficiency and soundness of facility maintenance and ensure more stable production capability.

Next, in terms of sustainability, in FY2019, we launched a "JSR Sustainability Challenge" initiative to quantitatively ascertain the social impact of our business activities and assessed the Group's concrete social contributions from the perspectives of climate change, recycling, digital transformation, and health. Furthermore, in FY2020, by analyzing scenarios such as those compiled by the Task Force on Climate-related Financial Disclosures (TCFD), we will work to define the kind of Group we want to be in 2050, and identify measures we need to take based on that future perspective. Taking both our present and our future into consideration, we will formulate long-term sustainability goals in a JSR Sustainability Vision 2050 initiative.

Ensuring That We Remain a Great Company in 30 Years

The fact that, at our core, we are a technology company is of great significance as we seek to continue doing business in the midst of numerous changes to the operating environment and as the Group aspires to provide the same value 30 years from now as it does today. When JSR was founded, our technology contributed to the synthetic rubber field. Since then, as JSR pursued other, more advanced technology, it branched out into new fields, and the Group grew in scale. In short, technological development and the development of this Company are synonymous, and delivering unparalleled technology remains our core competence. To create superior technology in the future requires a solid foundation centered on employees, customers, and alliances with other companies. A company that simply pursues financial returns is unable to build such a foundation. It is extremely important to understand, appreciate, and respect the value each partner creates. I want us to continue being a company that both pursues technology and values people, so that we can keep delivering innovation to society.

Five Foundations

The Group recently defined Five Foundations as our basis for doing business and achieving sustainable growth. The five elements are: Sustainability, Innovative Culture, Digitalization, Globalization, and Operational Excellence.

We positioned Sustainability at the center of the Five Foundations. Next, Innovative Culture is an indispensable foundation for a company like JSR that puts value on technology. We must not be bound by preconceived notions but rather explore new avenues in all directions. For a company that has expanded around the world, Digitalization means not simply rolling out new equipment or doing better data analysis, but rather actively integrating digital technology throughout our various operations in order to expand growth possibilities for the company. Globalization entails being sensitive to geopolitical issues and social changes, and establishing best practices in response. Operational Excellence involves making sure that all levels within the organization understand the business strategy and implement it effectively. The thinking is that, as each business makes steady process improvements, this leads to an overall position of competitive superiority.

Leveraging Human Resources and Promoting Diversity

Creating a system that enables every employee to be curious and engage in all sorts of challenges is the most essential aspect of effective human resources utilization. You can't have an environment where failure is punished. It's important to have a corporate culture that encourages employees to learn from mistakes and draw on that in the next thing they do. This ties in with the Innovative Culture I mentioned above.

In terms of diversity, the Group has business sites around the world, with overseas employees accounting for more than 30% of the total. I myself am the first non-Japanese to serve as CEO. On the other hand, maintaining an organization that is diverse, and also fosters growth, is not easy. There are differences such as gender and nationality, but also differences in how employees engage their work. At times, talented people leave because of such differences in values. That's why it's so important to listen to what your employees are saying and to have honest discussions about what they see as the core issues involved. Of course, we need to seek a better system for doing this.

In June 2020, JSR named its first woman director, a key first step in terms of bringing diversity to the Board of Directors. She brings her exceptional capabilities as well as a different perspective to our key strategy decisions. This is a good step but we need to explore ways to ensure diversity at every level. The true value of diversity is precisely when people with diverse skills and backgrounds can express their ideas and opinions from different perspectives. This applies not only to the Board of Directors, but out in the field as well. Going forward, we will continue to focus on creating an attractive environment where a variety of personnel can bring and exercise their strengths.

The Pursuit of Safety

It goes without saying that for the JSR Group, which has numerous production facilities that handle chemicals, safety is one of our most critical management issues. Furthermore, the onset of COVID-19 demands that we redefine what we consider to be a safe workplace environment. It's not simply a matter of following established rules. It will be more important than ever to create a climate in which all employees have a safety mentality and can teach one another and rely on one another to make the environment safe. We will also conduct more rigorous safety training and seminars, and pursue safety in terms of both infrastructure and personnel. I want to reiterate that our Group does business based on the thinking that safety should be our number one priority.

A Word to Our Shareholders and Investors

When I talk about the importance of JSR providing value to all of our stakeholders, I am fully aware that our shareholders must feel well represented in these efforts. I am committed to having open communication with our shareholders and investors who trust the Group, and entrust us with their money, and want to build even more robust engagement. In fact, we have had highly meaningful discussions with many of you, ranging from our management strategy to the long-term vision for what this Group should be. Going forward, I will continue to work to maintain relationships built on open, mutual communication.

I am proud to have been with JSR for more than 20 years. My sincere hope is that you are also glad to be part of JSR as a stakeholder, helping us to create value. With technology at our core, JSR will continue to create value through materials, thereby contributing to society in terms of people, society, and the environment. I will do my best to strive towards these ends and ask for your continued support and encouragement.

Representative Director, CEO
Eric Johnson

CFO Message

Progress of the Mid-Term Business Plan

Under the JSR20i9 Mid-Term Business Plan, the three years spanning FY2017 to FY2019 were positioned as a period to strengthen competitiveness for the future. Accordingly, we pursued changes aimed at creating a framework that can sustainably achieve ROE of at least 8% and total operating profit of 42 billion yen or more. As a result, revenues increased steadily in the Semiconductor Materials Business segment, which is an existing growth driver for JSR, as well as in the Life Sciences Business, which is being developed as a third pillar of growth. In the Digital Solutions Business as a whole, we have been strengthening the fields of lithography materials and functional cleans. In the Elastomers Business, we built an overseas plant dedicated to solution polymerization SBR (SSBR), which is in high demand for its eco-friendliness. In the Plastics Business, the merger of JSR Group company Techno Polymer Co., Ltd. and UMG ABS Co., Ltd. to form Techno-UMG Co., Ltd. resulted in increased domestic market share. Through these efforts, JSR was able to achieve its revenue and operating profit targets for FY2018. However, in FY2019, the final year of the plan, a strong US economy notwithstanding, there were signs of a global economic slowdown due to the effects of a slump in the Chinese economy and deepening tensions between the US and China. Moreover, from the latter half of February 2020, global economic activity came to a standstill amid the COVID-19 outbreak, while the oil demand crisis led to sluggishness in the petrochemicals market. As a result, we were unfortunately unable to achieve our operating profit and ROE targets in FY2019.

Operating Profit (¥ millions)

	FY2018	FY2019	FY2020 Pro	YoY
Digital Solutions Business	142,216	144,805	135,000	-7%
Operating Profit	32,663	30,917	24,000	-22%
Life Sciences Business	43,872	50,496	61,000	21%
Operating Profit	781	3,594	5,500	53%
Elastomers Business	200,736	178,794	145,000	-19%
Operating Profit	7,421	(1,758)	(5,000)	–
Plastics Business	105,446	95,092	79,000	-17%
Operating Profit	9,214	6,237	4,000	-36%
Other Businesses & Adjustment	3,084	2,779	3,000	8%
Operating Profit	(4,818)	(6,104)	(5,500)	–
Revenue	495,354	471,967	423,000	-10%
Operating Profit	45,261	32,884	23,000	-30%

* FY2020 forecasts are as of April 2020.
Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

CFO Message

Regarding the new mid-term business plan scheduled for FY2020, we postponed announcing revenue and operating profit targets given the heightened uncertainties surrounding the COVID-19 crisis. However, the plan's management policy declared organizational resilience and sustainability as the growth slogans for the Group. Over the medium to long term, our intention is to increase R&D and business investment in the growing Semiconductor Materials and Life Sciences Businesses, with the aim of creating greater corporate value.

Initiatives by Business Segment

Digital Solutions

The Semiconductor Materials Business will focus on maintaining and increasing market share amid an expected upswing in semiconductor demand. Another focus will be on expanding sales of peripheral materials used in the production of advanced semiconductors, and targeting business growth that outpaces market growth by expanding our product portfolio. A plant is under construction in the US that will produce advanced cleans for cutting-edge semiconductors, with operations set to start in FY2020. In the Display Materials Business, we will seek to expand sales targeting the continued growth potential in the Chinese market, especially of our competitively strong alignment films and insulating films for wide-screen LC panels, while we align our organization structure to adapt to changes that have occurred in customer industries.

Life Sciences

KBI Biopharma, Inc. and Selexis SA will seek to expand new contracts for their research, development and manufacturing services for biopharmaceuticals. In addition, Crown Bioscience International will focus on increasing multi-year contracts for its preclinical contract research and translational technology business. The use of our diagnostic and bioprocess materials is expanding globally. Meanwhile, Medical & Biological Laboratories Co., Ltd. will contribute to expand through stable growth in its clinical diagnostic and research reagents businesses.

Elastomers

SSBR demand is growing for use in fuel-efficient tires, as well as for new applications such as electric vehicles and all-season tires. To meet this demand, the Group's new plant in Hungary will begin commercial production in FY2020, allowing JSR to supply SSBR globally from this new plant as well as its existing bases in Japan and Thailand, leading to increased sales. On the other hand, automobile and tire manufacturing, which are major demand industries for this segment, are currently stagnant due to COVID-19. The segment has begun to undertake structural reforms needed to respond to these and other drastic changes in the business environment, including the global economic slump and the oil demand crisis.

Plastics

For the automobile market, the Group will work to further strengthen profitability by expanding sales of distinctive high-performance products, especially in overseas markets. Techno-UMG Co., Ltd., which was formed through the April 2018 merger of two companies as previous noted, will continue to leverage the manufacturing, development, and sales capabilities of both companies while realizing synergies through operational and product integration.

Planned Investments

JSR will continue to invest in growth despite the COVID-19 crisis. In particular, we will invest aggressively in the Semiconductor Materials and Life Sciences businesses, which are positioned as growth drivers. Specifically, we will invest in innovation, capacity building, and M&As. Furthermore, to support next-generation research, construction of a new JSR Bioscience and Informatics R&D Center in Kawasaki City is moving forward, with operations due to begin in 2021. The Center will create new business opportunities through research using materials informatics, which involves a broad range of advanced digital technology applications in materials development, and its labs and office space will be open to outside partners to engage in open innovation. Although JSR has sufficient capital on hand for these investments, we will issue a further 35 billion yen in corporate bonds and otherwise diversify our financing to guard against heightened future uncertainties arising from COVID-19 and increasing geopolitical risks.

Changes in R&D Expenses

	2016	2017	2018	2019	2020 (Prospect)
R&D Expenses (Billion yen)	19.7	20.3	24.9	25.4	25.0

CFO Message

Towards Building a Sustainable and Resilient Group

The Group has committed to organizational resilience and sustainability as the foundations for future growth. Environmental, social, and governance (ESG) issues, which are crucial to sustainability, are taking on more significance in capital markets and are extremely important factors in measuring corporate value. In this context, we have been engaging in discussions with numerous investors about governance issues, and are pleased that our sound, transparent governance system has been recognized as something that will lead to growth. On the other hand, in recent years, calls for action to address environmental and social issues have been rising rapidly, and JSR faces expectations to focus on human resource development, diversity, energy-saving, carbon emission reductions and other areas to ensure corporate sustainability. To respond to such trends in society, we intend to actively allocate funds to strengthen ESG measures, alongside traditional investments targeting earnings growth. I am confident that this approach will serve to strengthen our businesses and lead to the long-term development of JSR Group.

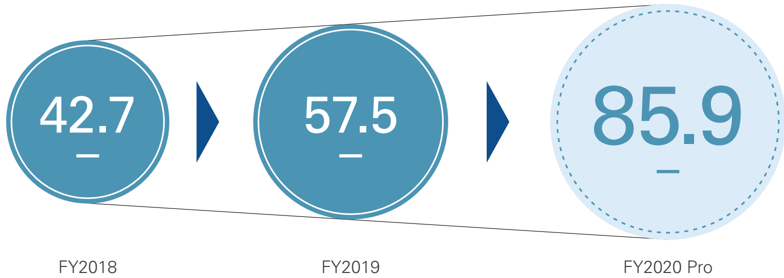
Shareholder Returns

The Group believes it is of the utmost importance to pursue stable, long-term growth by strengthening our competitiveness from a long-term perspective. Therefore, shareholder returns are determined through consideration of business performance and medium- to long-term capital requirements, and the balance between the redistribution of profits to shareholders and retained earnings for the future growth of the Company.

During the previous mid-term business plan, the Company sought an overall return to shareholders of at least 50% through a combination of dividends and share buybacks. We will continue to determine shareholder returns based on this policy. The annual dividend for FY2020 has been set at 60 yen per share.

COVID-19 has caused increased uncertainties around the globe. However, we believe that the current crisis is also an opportunity to carry out the reforms needed to make our organization more sustainable and more resilient. As CFO, I will continue to provide full financial backing for these reforms, and would like to ask our shareholders for their continued support.

Changes in Dividend Payout Ratio

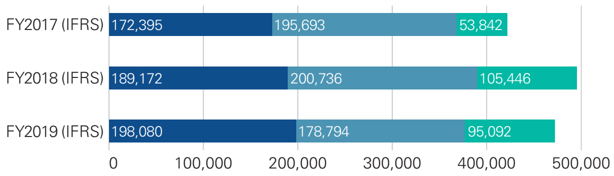


Business Domain

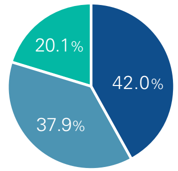
The business domains for JSR Group are Digital Solutions, Life Sciences, Elastomers and Plastics Businesses.
In each of these domains, we are developing business activities based on mid- and long-term perspectives.

JSR Group has reclassified its disclosure segments effective from FY2018, the fiscal year ended March 31, 2019. Please refer to page 3 for details. Pursuant to Paragraph 1 Article 120 of the Rules of Corporate Accounting, the Company's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) effective from FY2017, the fiscal year ended March 31, 2018.

Revenue by Business Segment (Millions of yen)

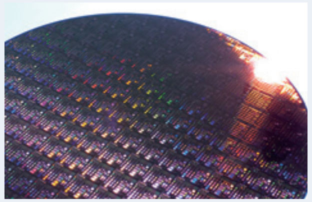


FY2019 Composition Ratio



Digital Solutions Business, Life Sciences Business and Other Businesses; Elastomers Business; Plastics Business

Digital Solutions Business



Semiconductor Materials

Lithography Materials

- Photoresists, Multilayer materials, etc.

Advanced Electronic Materials

- CMP slurries, CMP pads, Thick-film photoresists, photosensitive insulation materials, etc.

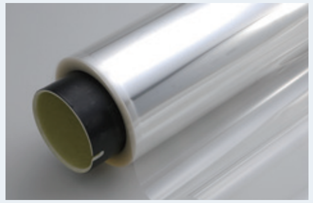
Display Materials

LCD Materials

- Alignment films, Protective coatings, Color pigment dispersed resists, Photosensitive spacers, Insulating layers, etc.

OLED Materials

- Insulating layers, Planarization layers, etc.



Edge Computing

- ARTON™ (Heat-resistant transparent resin), etc.
- High-performance UV curable resins, etc.

Life Sciences Business

Research & Diagnostics Reagents

Beads for clinical diagnostics, Research reagents, Magnetic beads, Latex beads

Bioprocess Materials

- Amsphere™ A3 (Protein A chromatography resin)

Contract Services

- Drug discovery, development and manufacturing

Elastomers Business

Synthetic Rubbers

- SSBR (Solution polymerization styrene-butadiene rubber), ESBR (Emulsion polymerization styrene-butadiene rubber), BR (Polybutadiene rubber), IR (Isoprene rubber), etc.
- NBR (Nitrile rubber), IIR (Butyl rubber), EPM/EPDM (Ethylene-propylene rubber), etc.

Thermoplastic Elastomers (TPE)

- RB (Butadiene type TPE), DYNARON™ (Hydrogenated polymer), TR (Styrene-butadiene type TPE), SIS (Styrene-isoprene type TPE), EXCELINK™ (Olefin type TPE), etc.

Emulsions

Paper coating latex, SB latex, Acrylic emulsions, Binders for batteries, SIFCLEAR™ (Water-based, durable, stain-resistant emulsion), etc.

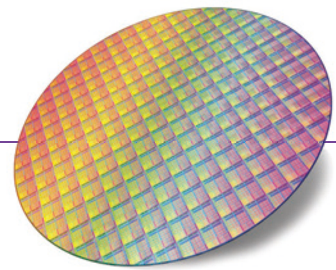
Plastics Business

ABS resins, AES resins, HUSHLLOY™ (Anti-squeak material), etc.

Other Businesses

- Procurement and sales of chemicals, next-generation research, etc.

Business Strategy



Digital Solutions Business ~Semiconductor Materials~

Corporate Issues

The semiconductor market is expected to grow in line with the full-scale introduction of 5G, IoT, and autonomous driving. Consequently, it is likely to bring about major changes in a wide range of fields including electronic components, industrial equipment, and automobiles. JSR is contributing to transformation in this field by developing cutting-edge materials that support semiconductor evolution and offering these to semiconductor manufacturers around the world.

Officer in charge of Electronic Materials Business
Yoshikazu Yamaguchi

Semiconductor Materials Business Approach

JSR Group will develop and provide cutting-edge materials that contribute to the evolution of semiconductors in a growing market driven by innovations in digital technology, such as with the development of IoT and 5G. In advanced lithography materials for the 10 nm node, we continue to maintain a large share of the global market. In addition, we are focused on product development and improvement of production technologies for EUV (extreme ultraviolet) photoresists, which are now being used for high volume manufacturing in 7 nm node devices.

We continue to expand our product portfolio with peripheral materials including CMP materials, cleaning solutions, and advanced packaging materials.

Initiatives

Amid expectations of heightened semiconductor demand driven by faster communication speeds and increased data communication and capacities, the Semiconductor Materials Business is working to maintain and expand its share of the cutting-edge lithography materials market, which encompasses state-of-the-art 7 to 10 nm node processes. The Group is also putting resources into the development and sales of EUV lithography materials for 5 nm and subsequent node processes. At the same time, JSR Group is concentrating on enlarging sales of semiconductor peripheral materials, especially advanced packaging materials, cleaning solutions, and CMP materials used in cutting-edge semiconductor manufacturing, and broadening its product portfolio to achieve business growth that outperforms market growth. A newly constructed plant for functional cleaning solutions for state-of-the-art semiconductors in the U.S. is aiming to start up operations in FY2020. The new plant will establish a supply framework of functional cleaning solutions for state-of-the-art semiconductor manufacturing processes, as JSR Group endeavors to further expand its business in semiconductor materials.

Progress of Mid-Term Business Plan

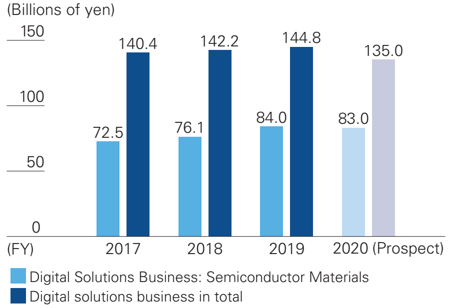
Operating Results for FY2019

Although the semiconductor memory market remained sluggish, logic devices began to recover in the first half of FY2019. Year-on-year revenues were up, bolstered by strong sales of state-of-the-art photoresists and expanded sales of new products such as EUV photoresists and cleaning solutions. The Semiconductor Materials Business was largely unaffected by COVID-19, which began affecting other markets in the last few months of FY2019. Operating profit increased despite greater costs associated with expanding sales of cleaning solutions. As a result of the above, revenue for the Digital Solutions Business for the fiscal year under review was 144,805 million yen (a 1.8% year-on-year increase) while operating profit was 30,917 million yen (a 5.3% year-on-year decrease).

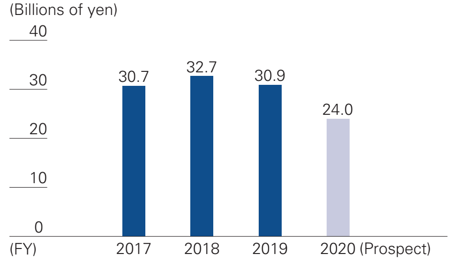
Progress under the JSR20i9 Mid-Term Business Plan

The Semiconductor Materials Business achieved sales growth outperforming the market through the expansion of sales of peripheral semiconductor materials, such as CMP materials, highly functional cleaning solutions, and advanced packaging materials, in addition to lithography materials, especially JSR's globally competitive state-of-the-art photoresists. EUV photoresists Manufacturing & Qualification Center N.V. –a joint venture manufacturing EUV photoresists that was set up in Belgium with imec, a research institute in cutting-edge nanoelectronics technology– began production in 2017 and is steadily increasing the supply of EUV lithography material products that support 5 nm and subsequent node processes for cutting-edge semiconductor manufacturers.

Revenue



Operating Profit



* Totals for Digital Solutions Business segment
* Standalone operating profit for the Semiconductor Materials Business is not disclosed

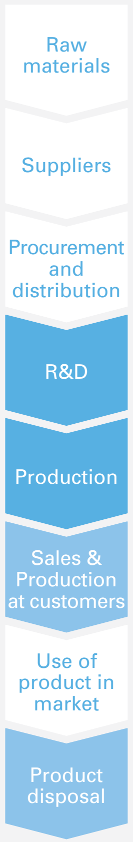
* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

Business Strategy

JSR Sustainability Challenge

Negative impacts identified in the Semiconductor Materials Business segment were the use of solvents and emissions-regulated chemicals in the manufacturing process and the use of some non-recyclable packaging in transportation. The Group is working to replace emissions-regulated substances. At the same time, JSR products contribute to the miniaturization of semiconductors and the realization of high-performance GPUs and AI chips which reduce power consumption and boost the energy efficiency of semiconductor chips, thereby having a positive impact on society.

Negative impact



Need for early response to environmental regulations requiring alternative materials

Addressing PFOS Issues

Solvents used in semiconductor materials manufacturing and minute amounts of chemicals that carry environmental emission regulations have been identified, and JSR is taking measures in accordance with regulations. One example of a regulated chemical is perfluorooctane sulfonic acid (PFOS), which cannot be emitted into rivers or the ocean. Regulations are becoming more stringent worldwide, particularly in Europe. While customers sometimes demand the discontinuation of such substances, it is also essential for each material manufacturer to take the initiative in addressing these issues, and so JSR is working to find alternative materials in line with global standards.

Power consumption of clean rooms used in manufacturing

Clean rooms used in the manufacture and evaluation of high-quality semiconductor materials consume considerable power. However, since such clean rooms are operated at levels similar to surrounding temperatures and since they occupy limited floor space, JSR believes their environmental impact is limited.

Managing solvents and packaging used in product manufacturing and transportation

Solvents and by-products used to manufacture semiconductor materials which are not part of the final product end up as waste, and either their disposal is outsourced or they are incinerated on-site. In addition, since semiconductor materials are light-sensitive and require controlled temperatures, they are carefully packaged using various materials. While some materials can be recycled, others cannot, and may end up as waste at the place of sale. JSR Group is working to reduce waste and increase the recycling rate of materials.

Positive impact

Improving nanotechnology to reduce power consumption

Every generation in semiconductor development has seen remarkable advances in terms of greater integration through miniaturization and more power-saving designs. High-performance semiconductor chips used in servers, data centers, and other applications can significantly lower power consumption. JSR contributes to the reduction of power consumption by providing materials that enable miniaturization.

Energy efficiency through replacement with GPUs or AI chips

Development of semiconductor chips that can dramatically boost energy efficiency is underway. A prime example is AI chips, which have recently garnered attention. The amount of power needed for image recognition can be reduced to 1/10 or 1/100 of that required by conventional CPUs using AI chips specially designed for GPUs[*1] and neural networks[*2]. It was reported in the scientific journal *Nature* that cutting-edge neural chips can improve energy efficiency by up to 280 times. JSR is contributing to greater energy efficiency of semiconductor chips through its materials development.

*1 GPU: A semiconductor chip that performs the calculations required to render 3D graphics.
*2 Neural network: A mathematical model that imitates the configuration of nerve cells (neurons) in the brain.

Business Strategy

Digital Solutions Business ~Display Materials~

Corporate Issues

The spread of 8K broadcasting technology is fueling continued growth in the LC panel market and creating demand for new LCDs with high resolution, high brightness and lower power and energy consumption. JSR will continue to offer customers solutions that fully leverage its new digitalization-centered development methods.

Officer in charge of Display Solution Business
Keisuke Wakiyama

Display Materials Business Approach

LC panel manufacturing typically uses a high-temperature curing process ranging from 200°C to 250°C. JSR has developed new alignment films and peripheral materials that reduce environmental impact in the manufacturing process by enabling lower-temperature curing and launched sales of vertical alignment films last year. The Group will develop and supply innovative materials used to make 4K, 8K and other high-resolution LCD panels, and enhance business sustainability through the development and marketing of new products such as organic EL panel materials.

Initiatives

Targeting continued growth potential for LCD panels in the Chinese market, JSR will maintain its focus on sales of competitive alignment films and insulating films for wide-screen LCD panels while addressing structural changes in customer industries. To this end, business management functions were transferred from Japan to China, the main market, and a system was put in place to enable efficient information gathering and quick, frontline decision-making in that market. In addition, sales offices were established in Beijing, Hefei, Chongqing, Fuzhou, Shenzhen, and Guangzhou to reinforce sales and technical services, while a new technical center in Shanghai reinforces technical support capabilities.

Progress of Mid-Term Business Plan

Operating Results for FY2019

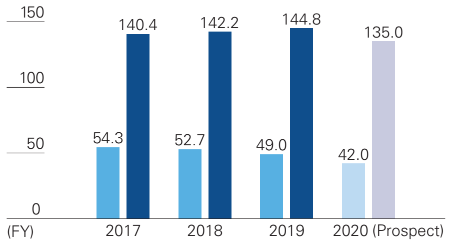
Sales volume of alignment films and insulating films for wide-screen TV LCD panels for the Chinese market grew, but the impact of operational adjustments, including the abandonment of production by some customers amid structural changes including the shift of LCD production to China, resulted in lower revenues from the previous fiscal year. This fall in revenue and other factors also caused a decline in operating profit from the previous fiscal year.

Progress under the JSR20i9 Mid-Term Business Plan

JSR focused resources on the Chinese market, where LCD panel production volumes are growing, and expanded sales of its competitive alignment films and insulating films intended particularly for wide-screen ultra-high-resolution LCD panels. JSR Micro (Changshu) Co., Ltd., a joint venture manufacturing company established to promote sales in the growing Chinese market, is expanding production of display materials. At the same time, many South Korean and Taiwanese LCD panel makers who buy JSR display materials have begun adjusting or preparing to shut down production line operations due to their waning competitiveness in the face of Chinese manufacturers.

Revenue

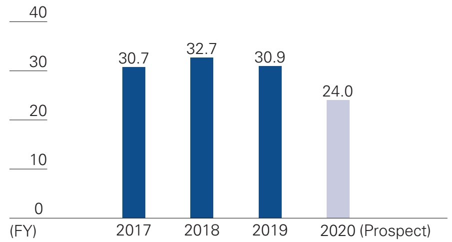
(Billions of yen)



Digital Solutions Business: Display Materials
Digital solutions business in total

Operating Profit

(Billions of yen)



* Totals for Digital Solutions Business segment
* Standalone operating profit for the Display Materials Business is not disclosed

* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

JSR Sustainability Challenge

Negative impacts identified in the Display Materials Business segment included highly soluble organic solvents subject to regulations that are used to manufacture products, as well as the fact that, since most products contain solvents, waste is inevitably generated when they are used by customers. There is also a need to address the risk that some necessary raw materials could become unavailable due to accidents or other interruptions in the supply chain. JSR is exploring alternatives to highly soluble organic solvents and expects to expand their use going forward. JSR is also advancing products that enable customers to use low-temperature curing in LC panel manufacturing and developing new alignment films that increase the brightness of LCDs. In these ways, the Group is contributing to reducing power consumption.

Negative impact

- Raw materials
- Suppliers
- Procurement and distribution
- R&D
- Production
- Sales & Production at customers
- Use of product in market
- Product disposal

Impact of accidents on the raw materials supply chain

For externally sourced raw materials, there is a risk that materials will be unavailable or that costs will increase significantly in the event of an accident such as an explosion at a manufacturing base. JSR is cultivating multiple suppliers and taking other steps to mitigate such risks.

Responding to highly soluble organic solvent regulations

Some highly soluble organic solvents used to manufacture display materials are subject to regulations to guard against harm to workers' health or the environment. JSR is taking initiatives to address the possibility that the use of such materials will be prohibited in the future.

Disposal of solvents

The use of solvents for in-house product manufacturing is necessary for tasks such as cleaning manufacturing tanks. In addition, most products in the Display Materials Business contain large amounts of solvent, which requires customers to manage their disposal. The JSR Group is initiating programs to recycle solvents and reduce the amounts used.

Positive impact

Anticipated need to respond to highly soluble organic solvent regulations

While the use of organic solvents is currently not fully prohibited, JSR has been exploring alternative solvents in anticipation of possible prohibitions in the future and is prepared to offer these to customers. Marketing has not yet begun, but strong future growth in this area is expected as greater emphasis is placed on green procurement.

The latest products reduce energy required in the display manufacturing process

JSR has developed products that enable low-temperature curing in the LC panel manufacturing process, lowering curing temperatures from between 200°C and 250°C to around 150°C. This yields a 25-30% reduction in power consumed during the curing process at customer plants. The Group is conducting further research with a vision that all JSR products will function at a curing temperature of 150°C and is marketing these applications.

Reducing end-product power consumption by increasing brightness

Newly developed alignment films boost display brightness requiring less backlighting and therefore lower power consumption. These alignment films, used in combination with insulating films in HD TVs, make it possible to cut power consumption by approximately 30%. This helps offset the increase in power consumption accompanying larger sized displays.

No.1 share worldwide for 4K/8K TV display materials

Sales of 4K/8K TVs, which are said to account for about 10% of the market currently, are expected to increase in the future. Alignment films manufactured by JSR are being used in 4K and 8K TVs on the market, enabling the Company to secure the top share of the global market.

Life Sciences Business

Corporate Issues

The realities of an aging society have given rise to increasing medical costs and issues for elderly care, and society as a whole faces challenges in extending healthy life expectancy so that people can live without the need for frequent medical or long-term care. JSR is working on the development of personalized medicine, primarily in biopharmaceuticals and cutting-edge diagnostics to support a healthy and long-lived society.

Officer in charge of Life Sciences Business
Tim Lowery

Life Sciences Business Approach

Following the additions of KBI Biopharma, Inc. (KBI), MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. (MBL), and Selexis SA to JSR's Life Sciences Business, Crown Bioscience International (Crown Bio), a provider of preclinical drug discovery and development services, was made a wholly-owned subsidiary in 2018. This gives JSR a framework for supporting the entire biopharmaceutical development process, from drug discovery to manufacturing. JSR is now able to provide drug manufacturers with efficient services that can shorten the time from drug discovery to manufacturing, thereby helping to bring advanced healthcare to the market sooner.

Initiatives

The Life Sciences Business, positioned as the Group’s third core business, has steadily expanded revenue to around 50 billion yen. Future growth will be led by new contracts for the development and manufacture of biologics (CDMO) by KBI and Selexis and for preclinical research and discovery services (CRO) by Crown Bio. JSR will also focus on expanded global adoption of both our research and diagnostic reagents and bioprocess materials. Finally, we expect stable growth of the diagnostic reagent and specialized antibody development businesses at MBL. The JSR Group established JSR Life Sciences, LLC in the U.S. in January 2019 and transferred the global management functions of the Life Sciences Business to the new company. From the U.S., a global center of drug R&D, JSR Life Sciences will accelerate decision making and guide segment-wide strategies across the U.S., Europe and the Asia-Pacific regions, including oversight of Group life sciences companies.

Progress of Mid-Term Business Plan

Operating Results for FY2019

The Life Sciences Business segment saw stable revenue growth, specifically in the CDMO business, led by Group companies KBI and Selexis, and the CRO business led by Crown Bio. Sales of diagnostic reagent materials, bioprocess materials, and other products also climbed. MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.’s diagnostic reagent business grew steadily, contributing to overall higher revenue from the previous fiscal year. The segment saw a substantial increase in operating profit thanks to expanded revenue as well as realized benefits from business restructuring undertaken in the previous fiscal year.

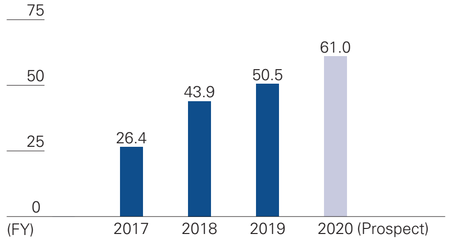
As a result, the Life Sciences Business segment posted an operating profit of 3,594 million yen (up 360.4% year-on-year) on revenue of 50,496 million yen (up 15.1% year-on-year).

Progress under the JSR20i9 Mid-Term Business Plan

JSR acquired Selexis and Crown Bio in 2017 and 2018, respectively. These companies, together with KBI, have constructed a framework that provides end-to-end process support, from preclinical discovery and development to production, primarily of biopharmaceuticals. As a result of these moves, the Life Sciences Business has steadily expanded its business, surpassing 50 billion yen in revenue.

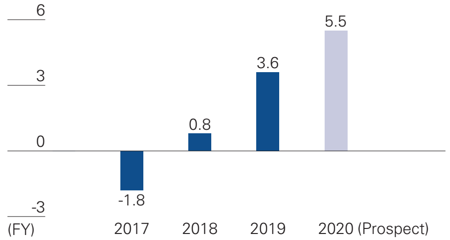
Revenue

(Billions of yen)



Operating Profit

(Billions of yen)



* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

Business Strategy

JSR Sustainability Challenge

A negative impact identified in the Life Sciences Business is that animal research is unavoidable in the development of pharmaceutical products. For this reason, JSR Group fully complies with international guidelines such as the 3Rs principles (replacement, reduction, and refinement) and conducts experiments appropriately to limit animal research to the fullest extent possible. The Group is also working to develop artificial organs and organoids as alternatives to animal research. Moreover, the Group contributes to society through business efforts to enhance the efficiency of pharmaceutical development and realize personalized medicine tailored to each patient.

Negative impact

- Raw materials
- Suppliers
- Procurement and distribution
- R&D
- Production
- Sales & Production at customers
- Use of product in market
- Product disposal

Animal testing and research

Given the current state of pharmaceutical development technology, animal research is unavoidable. It is crucial to adequately confirm the safety of a drug in animals before administering it to human beings. JSR Group performs animal testing and research services for drug evaluation on behalf of pharmaceutical companies. There are international guidelines, such as the 3Rs, which call for the ethical and humane treatment, and minimal use, of research animals. In addition, JSR Group supports its customers who are also required to comply with these frameworks.

Positive impact

Alternative animal-free testing

If technological advances enable the use of artificial organs as an alternative in toxicity tests, it will be possible not only to use fewer research animals, but also to conduct testing with something closer to human beings at the preclinical trial stage, thus increasing the chances of success. JSR Group is working to develop technologies that make organoids and other alternatives possible.

Contract Research (CRO) Business

JSR is working to boost the probability of success when shifting to human drug trials by conducting specialized animal testing and testing with animals that are as close as possible to human beings. Culturing the cancer cells of various patients in specialized mice and testing drug efficacy allows pharmaceutical manufacturers to develop drugs more efficiently, in a shorter time and at lower cost. Shortening the drug development period before release also means that current patients can benefit from effective drugs sooner.

Efforts to realize personalized medicine

JSR is aiming to realize personalized medicine offering healthcare in a more individually suited form. Biomanufacturing technology allows more tailored therapies to be efficiently produced and diagnostic technology that can ascertain in advance whether a drug is effective for an individual. JSR Group's strength is its ability to meet needs on both the biopharmaceutical development and the diagnostic sides, establishing technologies to stably produce biopharmaceuticals as well as technologies that support the diagnostic process, from the discovery of biomarkers to assess drug efficacy to the commercialization of diagnostic reagents.

Business Strategy

Elastomers Business

Corporate Issues

Sustainable development within the industry, typified by the SDGs and a focus on reducing impact on the environment, will lead to further sophistication and diversification of customer and social needs. We see this trend as a major business opportunity for our elastomer materials. There are technological demands for low-wear and high-durability materials due to the widespread use of conventional fuel-efficient tires and electric vehicles (EV).

Senior Officer in charge of Elastomers Business
Kazushi Abe

Elastomers Business Approach

Solution styrene-butadiene rubber (SSBR) is produced using JSR's proprietary molecular design and manufacturing technologies accumulated over many years. JSR will offer new SSBR products to address diversifying customer needs. The Group will leverage its supply network of bases in Japan, Thailand, and Hungary to achieve sales volume that outpaces growth in the SSBR market.

Initiatives

Production of automobiles and tires, the segment’s main customer industries, has currently come to a standstill due to the impact of COVID-19, and JSR is embarking on business restructuring to address the segment’s profitability issues. At the same time, SSBR demand is increasing for use in fuel-efficient tires as well as expanding to new applications, such as EVs and all-season tires. To address rising demand, JSR MOL Synthetic Rubber Ltd. (JMSR) in Hungary will start commercial production in FY2020, enabling the JSR Group to supply SSBR globally from three sites in Japan, Thailand, and Hungary and thereby expand sales. Additionally, the JSR Group will boost the ratio of high-added-value products in the Elastomers Business portfolio, such as binders for rechargeable lithium-ion batteries that are experiencing growing global demand, while pursuing restructuring to raise the segment’s profitability and ensure business sustainability.

Progress of Mid-Term Business Plan

Operating Results for FY2019

Global production of tires remained weak throughout the year due to a downturn in automobile production, particularly in China, compounded by temporary production stoppages or reductions at tire plants in Europe and elsewhere.

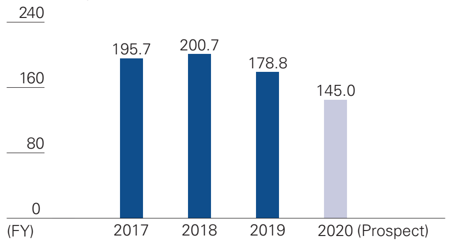
Amid these circumstances, the sales volume of SSBR, positioned by JSR as a strategic product, improved over the previous fiscal year, despite a year-on-year decline in worldwide tire production volume. Nevertheless, the segment recorded lower revenue compared to the previous fiscal year, as the segment’s overall sales volume was sluggish and sales prices slid because of a deterioration in raw-material market conditions. The segment posted an operating loss for the full term as a result of the revenue decline, narrower price spreads, and the impairment loss on some fixed assets made in the fourth quarter.

Consequently, the Elastomers Business segment posted an operating loss of 1,758 million yen, versus an operating profit of 7,421 million yen in the previous fiscal year, on revenue of 178,794 million yen (down 10.9% year-on-year).

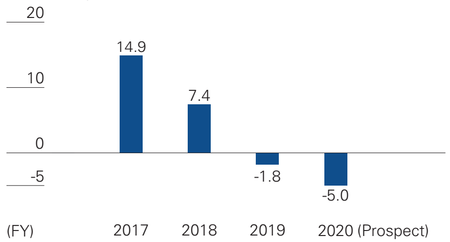
Progress under the JSR20i9 Mid-Term Business Plan

Sales of solution styrene-butadiene rubber (SSBR) for high performance tires, for which global demand is climbing, remained firm. At JSR BST Elastomer Co., Ltd. (JBE), a joint venture in Thailand producing SSBR, first-phase and second-phase facilities achieved full output. JSR MOL Synthetic Rubber Ltd. (JMSR), a joint venture set up in Hungary, completed construction of a new plant that will start commercial production in FY2020 to address further demand increases.

Revenue



Operating Profit



* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

JSR Sustainability Challenge

A negative impact identified in the Elastomers Business was the extremely high amount of CO_2 emitted during manufacturing. On the other hand, looking at the overall product cycle through use by the consumer, emissions are 2.3 times lower than at the time of manufacturing. Going forward, JSR will bolster positive elements in the segment by achieving longer product life cycles through the use of new materials and taking steps to reduce CO_2 emissions during manufacturing. The Group is also addressing social calls for recycling by developing easily recyclable thermoplastic elastomers and tires that generate less waste particles.

Negative impact

Raw materials
Suppliers
Procurement and distribution
R&D
Production
Sales & Production at customers
Use of product in market
Product disposal

CO_2 emissions

The petrochemical industry is an energy consuming industry, and JSR's Elastomers Business segment also emits significant amounts of CO_2. Given these circumstances, the Group is working to reduce emissions by further developing energy recovery and recycling activities. Also planned are steps to promote an ideal energy mix by expanding renewable energy and comparatively environmentally-friendly LNG. Our target is to cut CO_2 emissions by 15% by 2030 compared to 2013 levels.

Wastewater and emission of harmful substances into the atmosphere

There are always concerns about the emission of harmful substances at chemical plants. JSR fully complies with all relevant laws and regulations to protect the environment and prevent pollution of the atmosphere, groundwater and soil.

Aging equipment

The oldest plant in JSR's Elastomers Business is 60 years old. Aging facilities carry the risk of equipment failure and leakage. JSR is working to prevent such incidents by increasing investment in measures to keep facilities up to date.

Issue of post-sale tire waste particles

While not yet at the forefront of global environmental concerns, JSR Group is focused on the potential impact of waste particles expelled by automotive tires.

Positive impact

Effect of CO_2 emission reduction with SSBR

By using JSR's SSBR in the treads of tires, it is possible to increase the total mileage and reduce the weight of tires, which leads to reductions in CO_2 emissions by improving fuel efficiency. It is expected that the reduction of CO_2 emitted by automobiles with fuel-efficient tires using JSR's proprietary SSBR will be 2.7 times* greater than the CO_2 emitted during manufacturing.

* Estimated based on Tyre LCCO2 Calculation Guidelines Ver. 2.0 of the Japan Automobile Tyre Manufacturers Association.

New high durability materials

Demands on tires are diversifying to include not only improving fuel efficiency to reduce CO_2 emissions but also higher strength, wear resistance, and durability. JSR's new SBR is a polymer optimized through the combination of the Group's proprietary molecular design and hydrogenation technology. It offers high fracture strength, wear resistance, and durability, enabling a thinner tread and reducing the overall weight of the tire, achieving longer product life compared with other tires of the same thickness.

Thermoplastic elastomer

Vulcanized rubber is difficult to recycle without specialized methods. Using thermoplastic elastomers enables easy remolding with an ordinary injection molding machine or extrusion molding machine. Since scraps and defective products can be recycled and remolded, lower manufacturing costs, waste reductions and other environmental benefits are possible.

Tire waste particles

Improving tire durability leads to fewer tire waste particles.

Business Strategy

Plastics Business

Corporate Issues

Senior Officer in charge of Plastics Business
Kazumasa Yamawaki

Customer needs are diversifying, such as the demand for low in-cabin noise in line with increasing use of EVs, as well as calls for monomaterialization and solvent-free production to reduce environmental impacts and costs. The mission of Techno-UMG Co., Ltd., the core company in the Plastics Business, is to continue offering products that solve diversifying customer needs, such as materials yielding low-squeak noise or unpainted components which reduce environmental impact.

Plastics Business Approach

Techno-UMG Co., Ltd. was created on April 1, 2018 through the merger of two companies: Techno Polymer Co., Ltd. (a wholly owned subsidiary of JSR) and UMG ABS, Ltd. (equally owned by Mitsubishi Chemical Corporation and Ube Industries, Ltd.). In FY2018 we were able to increase production efficiencies while reducing our investment to increase capacity by moving production items between plants.

Utilizing the manufacturing, development and sales capabilities of both companies, we will strive to expand sales of specialty products such as those which target specific problems, especially in overseas markets, thereby achieving synergies through the merger.

JSR recently developed HUSHLLOY™, a product that suppresses the squeak noises that occur in plastic housings, contributing to in-cabin quietness in automobiles. The Group will take advantage of the compatibility of ABS materials with other materials to offer customers not only physical properties such as strength and heat resistance but other added functionality as well.

Initiatives

Techno-UMG Co., Ltd. will continue to take advantage of the accumulated production capacities, R&D capabilities, and marketing strength of the two former companies and realize synergy benefits through business and product consolidation. The company will endeavor to further enhance profitability by enlarging sales of specialty, high-performance products in overseas markets, such as HUSHLLOY™ anti-squeak material, PLATZON™ plating material, and VIVILLOY™ high color development compounds, with a particular focus on the automotive sector.

Progress of Mid-Term Business Plan

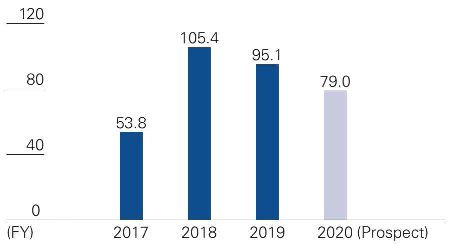
Operating Results for FY2019

In addition to sluggish performance, especially outside of Japan, in the automobile industry, the segment's sales volume was pushed down by the impact of COVID-19 in the 4th quarter and sales prices fell due to a deterioration in raw-material market conditions. These factors caused revenue to decrease from the previous fiscal year, and the decline in revenue together with decline in price spread led to a lower operating profit. As a result, the Plastics Business segment posted an operating profit of 6,237 million yen (down 32.3% year-on-year) on revenue of 95,092 million yen (down 9.8% year-on-year).

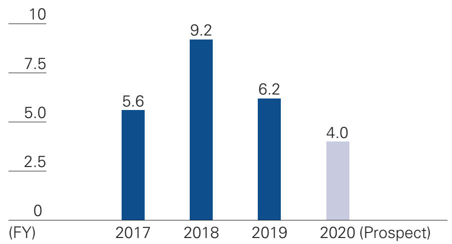
Progress under the JSR20i9 Mid-Term Business Plan

Having completed organizational integration, Techno Polymer's product portfolio was realigned to center on the competitive, high-performance products of both companies. Going forward, JSR will work to grow the business by further expanding its lineup of high-performance products and expanding sales, especially in overseas markets.

Revenue
(Billions of yen)



Operating Profit
(Billions of yen)



* FY2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

Business Strategy

JSR Sustainability Challenge

In the Plastics Business segment, acrylonitrile (AN) emissions were identified as a negative impact. JSR contributes to low in-cabin noise in automobiles by using materials to eliminate squeaks and reduce overall weight by replacing metal parts with plastic. The Group also helps to reduce environmental impact through the incorporation of monomaterial parts, which ensures recyclability and requires fewer materials and solvents used in painting.

Negative impact

Raw materials
Suppliers
Procurement and distribution
R&D
Production
Sales & Production at customers
Use of product in market
Product disposal

Diversification of raw materials suppliers

Among other measures, JSR is actively identifying alternative raw materials to limit our dependency on China-based manufacturers.

Compliance with AN emissions regulations

Emissions regulations for acrylonitrile (AN), the main raw material in ABS resin, will tighten in the future. JSR currently operates within standard limits but will take steps in anticipation of stricter regulations.

Decrease in usage rate of conventional plastic parts due to vehicle electrification

The types of plastics used for many automotive parts may change as vehicle electrification, and new functionalities, become more prevalent. For example, EV cars do not require radiator grills, while in the future cameras may replace door mirrors and touch displays replace switches.

Positive impact

Exhaust treatment facilities at Yokkaichi Plant

In 2020, JSR Group will invest in treatment facilities to strengthen emissions control. The new facilities are expected to be more effective than existing facilities in reducing CO_2 emissions.

Monomaterialization

The use of unpainted plastics makes recycling possible. Using such materials to eliminate squeaks in automobiles not only ensures low in-cabin noise but also makes it possible to reduce the overall amount of materials. Environmental impact is also lessened in terms of reducing solvents for painting.

Further weight reduction of automobiles with ABS resin

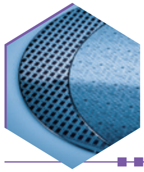
JSR can offer a 50% weight reduction by replacing metal components with high-hardness ABS resin, which has a lower specific gravity than metal. Subsequently, reduced vehicle weight will lead to an overall reduction in CO_2 emissions.

Diversifying plastics development for other in-vehicle product applications

Increased use of plastics in electronic component frames for safety equipment, such as radar, cameras and monitoring systems, is expected, and JSR is actively researching and developing plastics and alternative materials to address future industry requirements in a sustainable way.

Contribution to Advanced Technology Innovation

As 5G and other technologies accelerate digital transformation, demand for semiconductors and displays is increasing. In addition, there are calls to reduce environmental impact through lower power consumption and greater efficiency in the manufacturing process. In light of these demands, the Digital Solutions Business will contribute to society through continued innovation and the development of new materials.



Semiconductor Materials Business

Nanotechnology and power consumption

As mobile devices such as smartphones and cloud services enable a highly networked information society, and with the emergence of AI, advanced driver assistance systems for automobiles, and other elements of a smart society, semiconductor chips have continued evolving to offer faster processing, lower power consumption, and larger capacity. In collaboration with manufacturers in the global semiconductor field, JSR's Semiconductor Materials Business continues to lead the way in cutting-edge material technologies that enable the evolution of semiconductor chips.

It is said that if semiconductor circuit width can move from 14 nm to 7 nm, power consumption can be cut by roughly 40% while maintaining the same processing capacity. JSR will further refine its nanotechnology to support IoT, AI, 5G, and other elements of a smart society while lowering power consumption and saving energy.

In 2015, JSR established a joint venture with imec, a leading research institute in nanoelectronics technology, and began providing production and quality control services for extreme ultraviolet (EUV) lithography materials. EUV lithography is expected to be a key technology driving progress in the miniaturization and integration of semiconductors expressed by Moore's Law, even beyond the 7 nm threshold. Commercial production started in 2017.

Manufacturing joint venture (EUV RMQC*)
* EUV Resist Manufacturing & Qualification Center N.V.

Display Materials Business

JSR's alignment films boast the top share in the world

LC displays are composed of a number of films made of high-performance materials. JSR handles many such materials, but has a competitive edge in the alignment films used in liquid crystal arrays. JSR Group boasts the top share of the global market for display alignment films for 4K and 8K displays, which promise strong growth potential.

In 2019, JSR developed and began marketing a new grade of alignment film that enables low-temperature curing in the LC panel manufacturing process. Formerly, customer production lines required curing temperatures of between 200°C and 250°C, but the newly developed film is capable of a much lower 150°C curing temperature, which results in less energy consumed in the manufacturing process and is expected to reduce environmental impact.

JSR has actively been promoting digitalization in the development of alignment films and raw material polymers by utilizing data analysis and simulations to reduce the number of trial runs typically carried out on customer production lines, which led to faster development times. Going forward, the Group will continue to develop sustainable materials by leveraging greater digitalization in the R&D division for the development of new materials.

Chinese manufacturing joint venture (JMCH*)
* JSR Micro (Changshu) Co., Ltd.

Contribution to Advanced Technology Innovation

The automotive industry is undergoing a major transformation. With the advancement of electrification and autonomous driving, vehicle chassis are required to be lighter and more multifunctional than ever before.

In addition, calls are growing for innovations to reduce the environmental impact of automotive tires including extending product life and reducing rolling resistance, which aids higher fuel efficiency. JSR will contribute to the transformation of the automotive industry through its Elastomers Business and Plastics Business.

Elastomers Business

Benefits of SSBR

Fuel-efficient tires are environmentally-friendly and yet maintain their ability to stop safely and securely. JSR Group's polymerization SBR (SSBR) solution has received positive feedback from customers. JSR Group designed SSBR using technology that more readily facilitates rubber molecules and tire reinforcing material molecules to bond tightly, which reduces internal friction and rolling resistance*. In addition, this is achieved without changing the characteristics of the rubber that enables the tires to stop. SSBR allows large reductions in environmental impact throughout the entire lifecycle of the tire, from the material selection and its usage and disposal.

Automobiles are expected to still require tires even after automotive engines are replaced with electric motors. Thus, demand for SSBR is high both in countries and regions where environmental standards are high, such as Japan and Europe, and in emerging nations where reducing transportation-related environmental impact is an urgent issue. Amidst the rapid pace of automotive electric motor adoption, SSBR not only adds lower rolling resistance to tires, it also contributes to wear resistance and durability, thereby helping to maintain long-term performance. In addition, SSBR helps in meeting the growing demand for all-season tires that can be used year-round by adding a degree of softness that ensures tires with safe stopping performance in the summer can also provide reliable stopping performance on cold road surfaces.

JSR has developed a new, highly durable SBR. Optimized by combining JSR's proprietary molecular design and hydrogenation technologies, this polymer offers high fracture strength, wear resistance, and durability, enabling thinner treads, lower overall tire weight, and longer life compared with conventional tires of the same thickness. JSR Group is developing and marketing a series of new SSBR products offering the same kind of new added value.

SSBR before packing

* Rolling resistance: Resistance in the direction opposite to the direction of tire rotation.

Plastics Business

Monomaterials

The use of a single type of unpainted plastic makes recycling possible. By using anti-squeak materials, it is possible not only to ensure in-cabin quietness in vehicles, but also to reduce the overall number of noise suppression materials used. These plastics also lessen environmental impact by reducing the use of solvents in painting.

HUSHLLOY™ Anti-squeak Material

Friction at joints between plastic parts is a major design consideration because it can be the cause of unpleasant squeaking noises. HUSHLLOY™ styrene thermoplastic has revolutionary properties that prevent squeaking. In addition to reducing the upfront costs of implementing anti-squeak measures, HUSHLLOY's anti-squeak properties last for the lifetime of the product.

VIVILLOY™ Highly Colorable Material

Based on our proprietary polymer technology and experiences with other products, we developed a highly colorable material for paint-less applications. This product reproduces depth and vividness closely resembling paint for intricate applications and shapes. The elimination of the painting process contributes to lower overall cost and helps reduce environmental impact.

Strong Financial Foundation

Ratio of Equity Attributable to Owners of Parent to Total Assets (FY2019)

58.5%

Rating (As of September 30, 2020)

Long-Term Bond AA–

Short-Term Bond a-1+

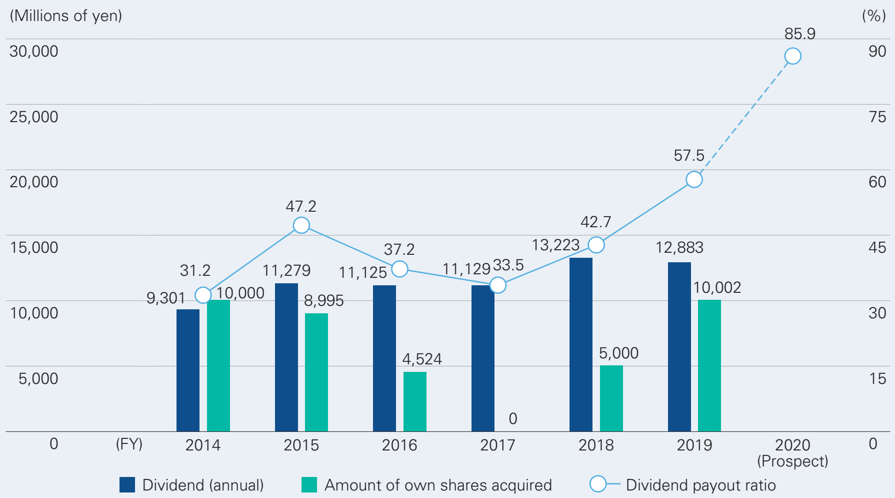
* Rating & Investment Information, Inc.

Capital Policy (FY2019)

Dividend (Annual)
12.88 Billion yen

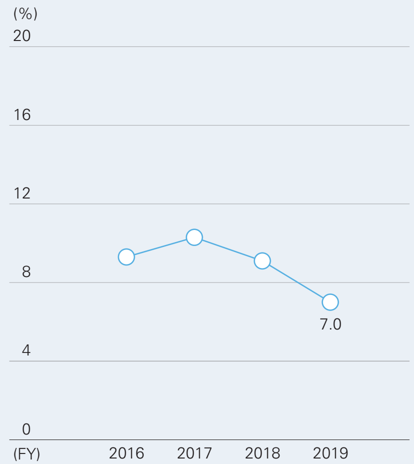
Amount of Own Shares Acquired
10.0 Billion yen

Dividend Payout Ratio
57.5 %
(The total return ratio including share buybacks was 101.7%)



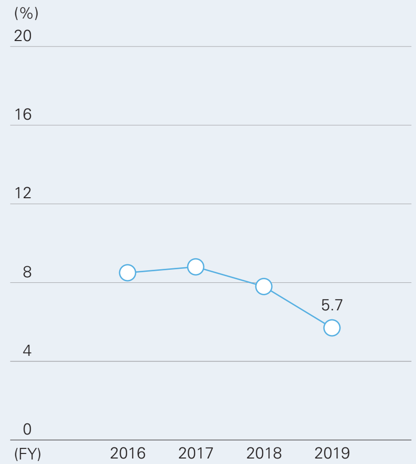
Operating Profit Ratio (FY2019)

7.0%



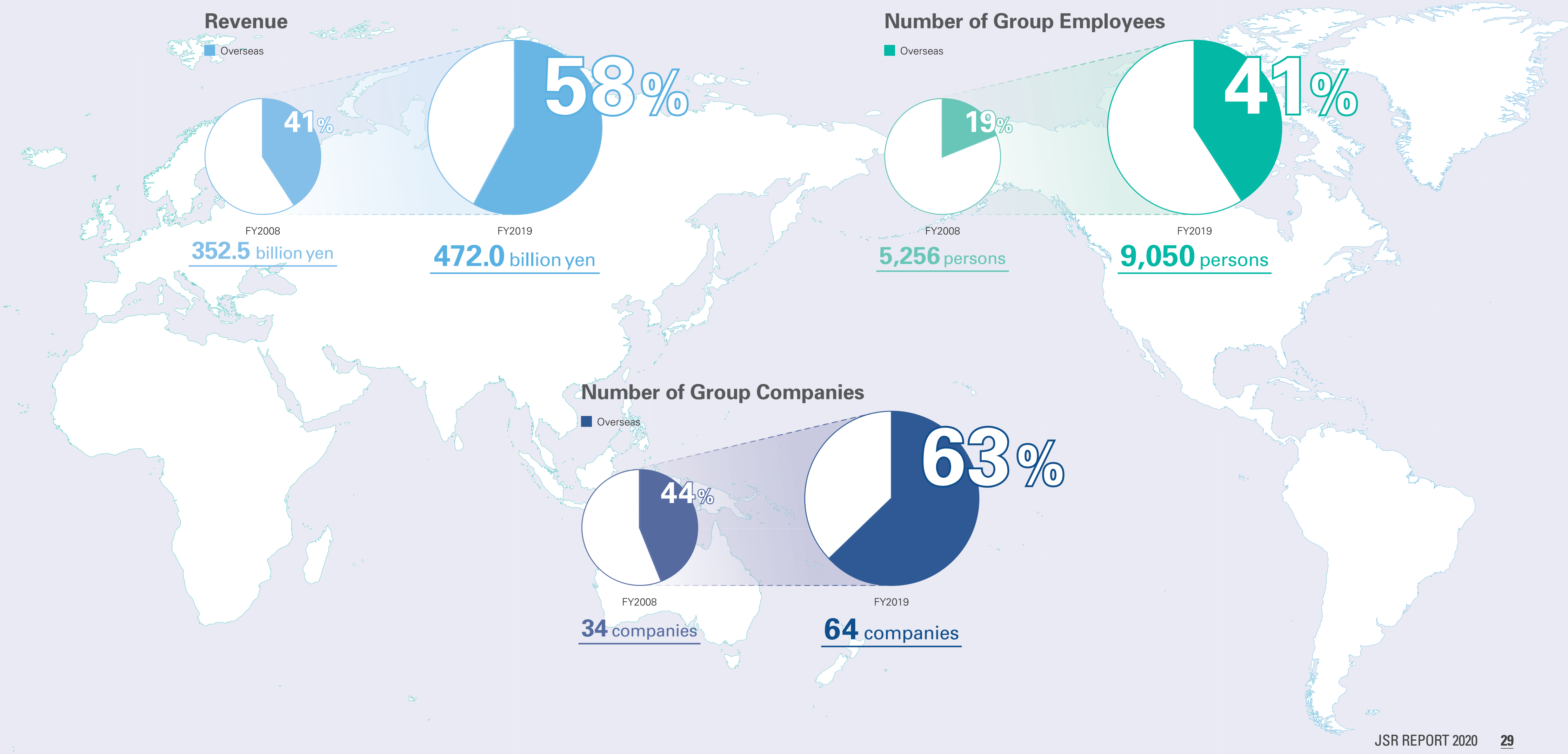
ROE (FY2019)

5.7%



Global Network

JSR was established as a national policy concern to pioneer synthetic rubber production in Japan and started production in 1960.
Since then JSR has continuously expanded its business and currently has four main business segments –Digital Solutions, Life Sciences, Elastomers and Plastics– that operate not only in Japan but through the U.S., Europe and Asia. Our business has increased substantially overseas in the last decade or so.



Global Network

Digital Solutions Business [Semiconductor Materials Business]

Major semiconductor manufacturers are located around the globe including the U.S., Europe, Korea, Taiwan, China and Japan. JSR Group has secured manufacturing bases in each region of the world to develop and provide cutting-edge materials that enable the evolution of semiconductor chips in a market driven by innovation in digital technology, such as with the development of IoT and Big Data.

JSR Corporation Head Office
(Japan/Tokyo)

JSR Electronic Materials Korea Co., Ltd.
(Korea)
- Sales agent for semiconductor materials.

JSR Corporation Yokkaichi Plant
(Japan/Mie prefecture)
- Production and R&D of semiconductor materials.

JSR Micro, Inc.
(U.S.)
- Production, sales and R&D of semiconductor materials.

EUV Resist Manufacturing & Qualification Center N.V.
(Belgium)
- Production of EUV photoresist for semiconductors.

JSR Micro N.V.
(Belgium)
- Production and sales of semiconductor materials.

* Both companies are located on the same site.

JSR (Shanghai) Co., Ltd.
(China)
- Sales of semiconductor materials.

JSR Micro Kyushu Co., Ltd.
(Japan/Saga prefecture)
- Production and sales of semiconductor materials.

Global Network

Digital Solutions Business [Display Materials Business]

Our target markets are China, Korea, Taiwan, and Japan, where LCD panel production is thriving. To support the continued growth taking place in China, we relocated the business's main operating body from our head office in Japan to China.

JSR Micro Korea Co., Ltd.
(Korea)
- Design, development, production and sales of display materials.

JSR Micro (Changshu) Co., Ltd.
(China)
- Production of display materials.

JSR (Shanghai) Co., Ltd.
(China)
- Global Display Materials business oversight and management.
- Sales of display materials.

JSR Micro Taiwan Co., Ltd.
(Taiwan)
- Design, development, production and sales of display materials.

Beijing Branch
Chongqing Branch
Wuhan Branch
Hefei Branch
Guangzhou Branch
Fuzhou Branch
Shenzhen Branch

JSR Corporation Yokkaichi Plant
(Japan/Mie prefecture)
- Display Materials R&D.

JSR Corporation Head Office
(Japan/Tokyo)

JSR
(China)
- Display Materials assessment and development.

JSR Micro Kyushu Co., Ltd.
(Japan/Saga prefecture)
- Production of semiconductor materials.

Global Network

Life Sciences Business

We are focused on expanding our business in the fields of biopharmaceuticals and high-precision diagnostics and research reagents, with an eye toward the major markets of Europe, the U.S., and Asia (China and Japan). JSR Group will provide new value while expanding Group companies globally through mergers and acquisitions.

JSR Micro N.V.

(Belgium)

- Manufacture and sale of bioprocess and life sciences related materials.

JSR Life Sciences Corporation

(Japan/Ibaraki prefecture)

- Manufacturing of life sciences related materials.

JSR Life Sciences, LLC

(U.S.)

- Global Life Sciences business oversight and management.
- Life Sciences product sales.

KBI Biopharma, Inc.

(U.S.)

- Biopharmaceutical process development and manufacturing services.

Selexis SA

(Switzerland)

- Cell-line development services.

MBL Beijing Biotech Co., Ltd.

(China)

- Sales and contract manufacturing of diagnostic and research reagents.

JSR Corporation Head Office

(Japan/Tokyo)

MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. (MBL)

(Japan/Aichi prefecture)

- R&D, Manufacture and Sale of diagnostic and research reagents.

JSR-Keio University Medical and Chemical Innovation Center (JKiC)

(Japan/Tokyo)

- A research collaboration among industry, academia, and medical fields for next generation medical services for longevity and a healthy society.

Crown Bioscience, Inc.

(U.S.)

- Drug discovery and development services.

Global Network

Elastomers Business SSBR

The recent rise in environmental awareness has led to the introduction of a labeling system that promotes the wider use of fuel-efficient tires in Japan, EU, Korea, and China, and is expected to be introduced in the U.S., India, and other countries. Moreover, technological demands for high performance tires are also on the increase with the spread of electric vehicles. Our solution polymerization SBR (SSBR) is set to provide a range of solutions for all the diversified needs of our customers.

JSR Elastomer Europe GmbH
(Germany)
• Sales of synthetic rubbers.

JSR MOL Synthetic Rubber Ltd.
(Hungary)
• Sales and manufacturing of Solution Polymerization Styrene-Butadiene Rubber.
(60,000 tons)

JSR Elastomer India Private Limited
(India)
• Sales of synthetic rubbers.

JSR BST Elastomer Co., Ltd.
(Thailand)
• Sales and manufacturing of Solution Polymerization Styrene-Butadiene Rubber.
(100,000 tons)

JSR (Shanghai) Co., Ltd.
(China)
• Sales of synthetic rubbers.

JSR Elastomer Korea Co., Ltd.
(Korea)
• Sales of synthetic rubbers.

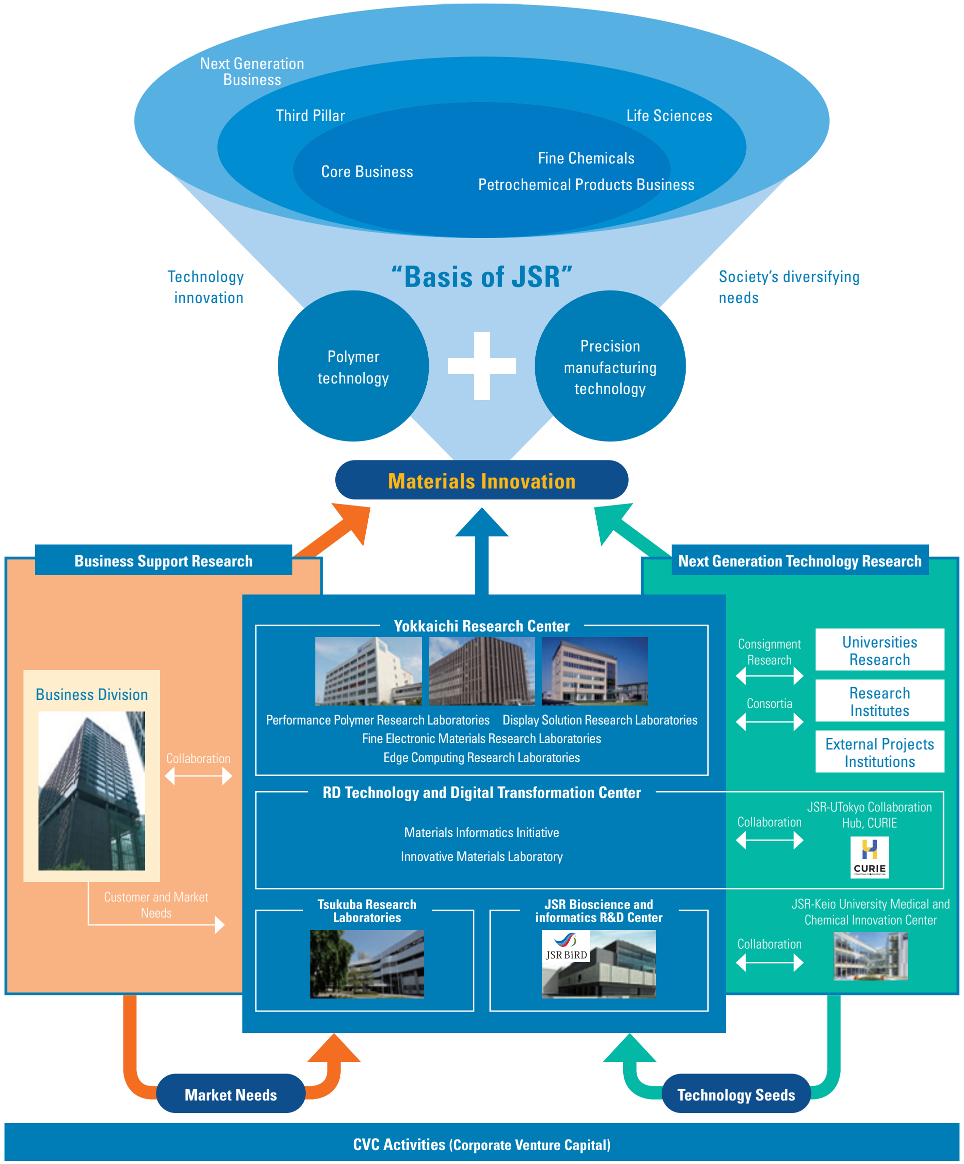
JSR Corporation Head Office
(Japan/Tokyo)

JSR Corporation Yokkaichi Plant
(Japan/Mie prefecture)
• Production and R&D of synthetic rubber.
(60,000 tons)

JSR Elastomer America, Inc.
(U.S.)
• Sales of synthetic rubbers.

Evolving Technical Capabilities

R&D Policy and Structure



JSR Group is promoting R&D activities to prepare for rapidly changing social needs, such as changes stemming from digital transformation and growing interest in personalized medicine and healthy longevity. There are two primary missions in the research department: to conduct "business support research" in fields that are currently being developed and to conduct new or applied research in peripheral areas, including "next-generation technology research" such as seed research where future growth is expected.

In promoting business support research, we focus on supporting market, process and manufacturing development, and cooperation with the value chain within the Group, specifically manufacturing, sales, and logistics. Researchers will directly contact customers in order to dig into specific needs and promote the integration of R&D and business. In this way we will enhance our technical service capabilities in each country to build an ecosystem that can support our customers' businesses globally and in a timely manner.

Regarding next-generation technology research such as seed research, we are working on research and development that anticipates the potential needs of the market. In June 2020, we reorganized the R&D divisions and created "RD Technology and Digital Transformation Center" to accelerate transformation. Especially in new fields, we are promoting open innovation such as joint research with domestic and international academic research institutes. In addition to establishing the JSR-Keio University Medical and Chemical Innovation Center (JKiC) for life sciences, we have established JSR-UTokyo Collaboration Hub, CURIE in April 2020 with Department of Physics, Graduate School of Science, The University of Tokyo to promote research and development in the basic principles of science. In addition, as an open innovation base focused on next-generation medical treatment and materials informatics, we are in the process of constructing the "JSR Bioscience and informatics R&D Center (JSR BiRD)" in KING SKYFRONT, Tonomachi International Strategic Zone of Kawasaki City, Kanagawa Prefecture, which is planned to begin operation in July 2021.

Open Innovation

1. JKiC

The Company and Keio University have established a joint research building, JSR-Keio University Medical and Chemical Innovation Center (JKiC), positioned as a base for collaboration among industry, academia, and medicine. This kind of collaboration between a university medical school and a chemical materials manufacturer is the first of its kind in the world. Through close collaboration with researchers from Keio University's medical department and hospital, who are developing basic, through to clinical, medicine and medical care, and JSR chemical materials researchers, who are developing advanced materials and products positioned as a strategic business in the field of the life sciences, we will realize a wide range of needs and advanced ideas in the medical field, conduct research and create businesses that lead to the establishment and spread of new diagnosis and treatment techniques, and medical support technologies that support a society of health and longevity.

At JKiC, where medical viewpoints and knowledge of material development come together, we plan to provide various solutions in the fields of health and longevity research based on new types of diagnosis and treatment techniques, medical support technologies that use digital health and 3D printing, and genome analysis. While ensuring there is adequate space for promoting collaboration among industry, academia, and medicine, we will establish a department that matches medical needs with the seeds of technology, working on new innovations in Japan where the advances of age are among the highest in the world. By delving into a completely new concept of fusion between medicine and chemistry, we will create innovations and establish practical technologies that contribute to a world of health and longevity.

2. JSR-UTokyo Collaboration Hub, CURIE

JSR and Department of Physics, Graduate School of Science, The University of Tokyo (the Department) agreed on a comprehensive collaboration and announced the start of a joint research program on April 1, 2020. Under this collaboration, the Department will deepen its understanding of the functions of various materials that have become an essential part of society and uncover universal truths and open up new academic fields. The fusion of academia and industry will enable JSR to bring new high-performance materials to society. This unique comprehensive collaboration also includes a fellowship and is the first such endeavor for both parties in the more than 130-year history of the Department and the over 60-year history of JSR.

JSR-UTokyo Collaboration Hub, CURIE office was set up in the Faculty of Science Building No. 1 on the Hongo Campus to carry out joint research. The hub, which aims to create great achievements through research and development results that fuse physics and chemistry, is named after Marie Curie, who was awarded Nobel Prizes in both Physics and Chemistry. In addition, the name stands for qualities considered important in research and development: CURiosity, Intelligence, and Emotion.

The collaboration will promote joint research aimed at the fusion of chemistry-based practical science and physics. The JSR Fellowship, a grant-type fellowship for Ph.D. candidates, was also established to cultivate experts who will contribute to the advancement of science and industry through physics that is not limited to theory and experiments, but comprehensive in scope, which will become increasingly important in the future. This comprehensive collaboration will enable JSR to deepen its understanding of the functionalization of its products and advance the science-based development of products with highly differentiated performance by integrating physics and chemistry.

3. JSR BiRD

Construction of the JSR Bioscience and informatics R&D Center (JSR BiRD) began in November 2019 at KING SKYFRONT, an open innovation hub in Kawasaki City, with plans to start up operations in 2021. JSR BiRD will be positioned as a base for early social implementation of microbiota, particularly the formulation of viable intestinal flora, which have recently gained attention as both a cause of, and treatment for, various diseases. JSR has taken major steps to enhance its R&D capabilities and create new value through digital transformation, and JSR BiRD will serve as a platform for revitalizing the Company's informatics activities. In addition, JSR BiRD's laboratory facilities and offices will be open to a wide range of partners to support the creation and growth of new businesses.

Advanced simulation and data science　Materials informatics

1. Advanced Simulation Technology

IBM Q is the name of the quantum computer provided by IBM. The IBM Q Network is the world's largest network consisting of various private companies, universities, and public research institutions with the aim of utilizing quantum computers in different forms. JSR participates in the IBM Q Network as a member company of the IBM Q Network Hub at Keio University and also participates as an IBM Q Network Partner. The fastest practical application of quantum computers is expected to be simulations using high-precision quantum chemical calculations. When this technology is perfected it is expected to drastically reduce experimental trial and error testing, having an immeasurable impact on material development. JSR is working on the development and acquisition of quantum chemical calculation technology focused on actual materials through the IBM Q Hub, etc., and is also looking at applications for the tests. While it is expected to still be several years before a quantum computer is put into practical use, development of algorithms and the identification of major use cases are well underway.

IBM Q Network Hub at Keio University

2. Data Science

JSR is pushing forward with cross-organizational efforts in order to promote a digital transformation in R&D based on material informatics (MI).

In addition to various computer experiments and simulations, including first-principle calculation aimed at developing materials through cyberspace experiments as opposed to chemical experiments in the real world, we are working to establish underlying technologies such as advanced analytics, including machine learning. These technologies have been brought about by dramatic improvements in computer capabilities, but in the latter half of the 2020s, as more disruptive technologies, quantum computers and braintype chips become ever more powerful, we believe that completely different methods for developing materials will be available. In collaboration with Enthought, Inc., JSR has been working on the development of a data management system and various simulation technologies with an eye toward applications for actual product development. In the data management system, as a platform for data utilization such as machine learning, JSR has built a database of various materials and an automatic management tool for experimental results. By involving engineers with full knowledge of the current development process, in addition to placing importance on how easy the system will be to use in the workplace, we are expecting there to be a number of benefits including an evolution in the current development process. Through these efforts we will promote the development of data science with a business perspective and, not only improve efficiency, but also create real value for business.

Environment

JSR's Outlook on the Environment

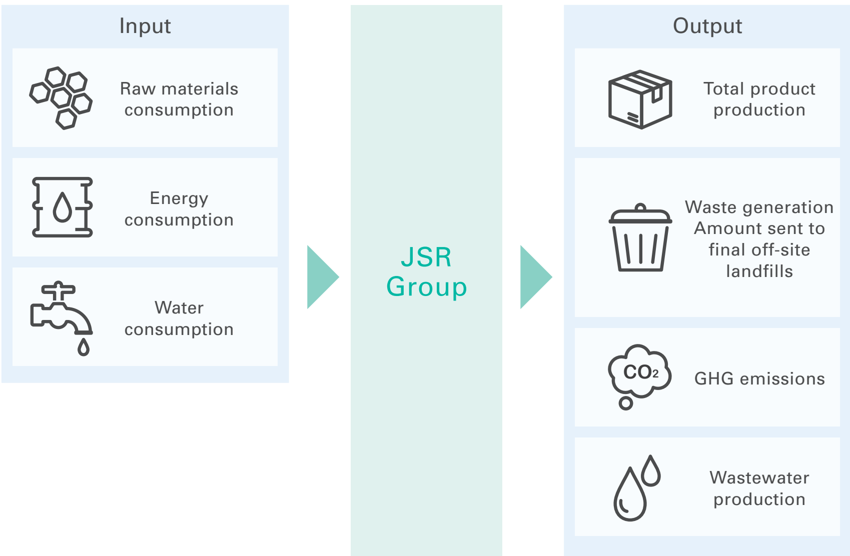
As a company that deals in chemical substances, JSR Group recognizes that it has a duty to help bring about a sustainable global environment and society.

Consequently, JSR considers reducing the environmental impact of business activities and managing chemical substances to be top priorities and strives to properly manage waste and greenhouse gas (GHG) emissions arising from energy consumption. Climate change in particular is expected to have a major impact on businesses due to the growing frequency of natural disasters and risks associated with future environmental regulations. For this reason, JSR has positioned the reduction of GHG emissions as a medium- to long-term management issue.

Reducing Environmental Impact: Material Balance

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

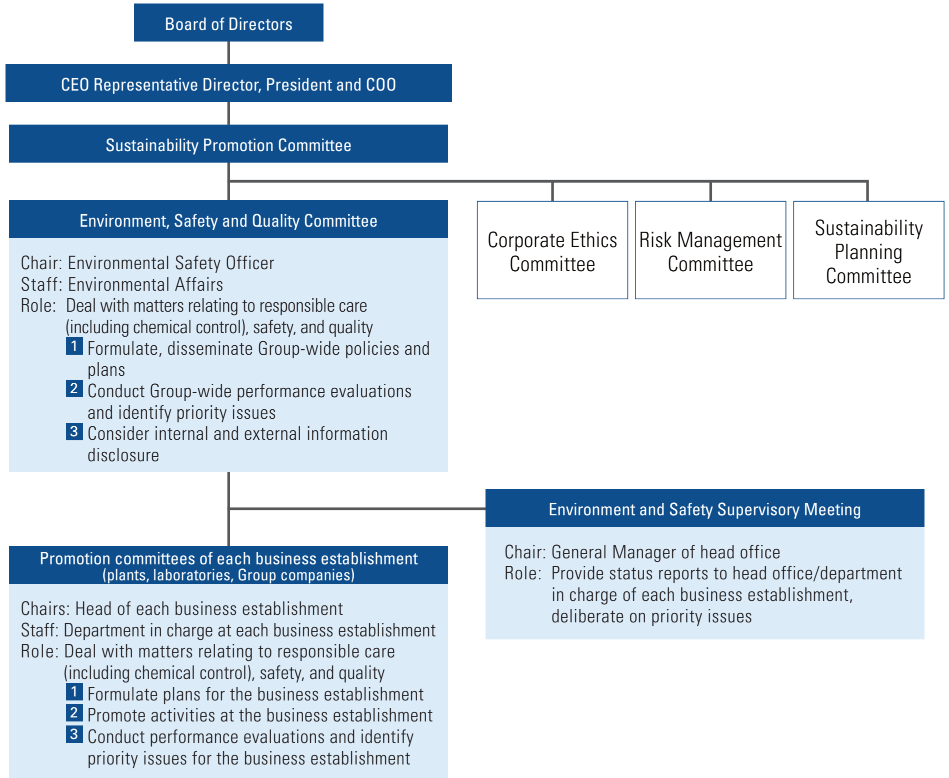
The chart provides an overview of JSR Group's environmental impact (material balance). It presents totals for three items as input (raw materials consumption, energy consumption, and water consumption) and five items as output (total product production, waste generation, amount sent to final off-site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



JSR's Approach to the Environment

JSR Group sets environmental targets based on its Environmental Safety Management Policy with the aim of integrating responsible care activities into corporate management. The Environmental Supervisory Department formulates initial targets, which are reviewed and approved by the Environment, Safety and Quality Committee chaired by the Environmental Safety Officer, and reported to the Sustainability Promotion Committee. The environmental affairs departments of each business play a central role in meeting established targets through responsible care activities in compliance with ISO 14001 environmental management system standards. JSR is also taking proactive responsible care measures such as the introduction of state-of-the-art equipment and technological development.

Environmental Management System Promotion Framework



Environment

JSR Group Response to TCFD Recommendations

JSR Group sees the problem of climate change as one of the most important issues facing society. We are therefore vigorously implementing activities to reduce GHG emissions by applying the technical strengths we have cultivated over the years. In such circumstances, we view the TCFD*1 Recommendations as contributing to the development of a sustainable society transitioning toward a low-carbon economy, and we have begun implementing initiatives that are in step with these recommendations.

First of all, we are further reinforcing our governance system by providing oversight by the Board of Directors and are beginning scenario analyses for the formulation of concrete management strategies, risk management plans, indices, and future targets.

Earnestly confronting climate change as a chemical company, we are deepening our understanding of the opportunities and risks brought about by our Group's corporate activities, taking action accordingly, and striving to proactively disclose our initiatives to the public.

*1 TCFD: The Task Force on Climate-related Financial Disclosures, established by the Financial Stability Board (FSB). In June 2017, the TCFD presented recommendations for the disclosure of the effects that climate change risk has on financial institutions, companies, and governments in financial reports. More than 1,000 organizations around the world have endorsed the recommendations (as of February 2020; published data of the TCFD).

Reducing GHG Emissions

The JSR Group is working to lower GHG emissions and support the realization of a low-carbon society by reducing the amount of energy used in various stages of manufacturing and through the products we provide to customers.

For information on how JSR products reduce GHG emissions, refer to the business impact data on page 7, "JSR Sustainability Challenge."

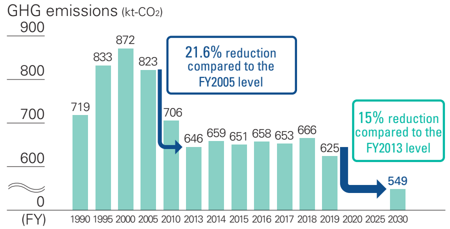
JSR Corporation

- Since FY2005, we have strived to upgrade our energy-saving technologies through various approaches, including installing fuel conversion facilities at the Kashima Plant (South Kashima Power Plant, Inc.) and introducing cogeneration facilities and a sludge dryer system at the Yokkaichi Plant. We thus achieved a significant GHG emissions reduction of 21.6% in FY2013 compared to FY2005.
- Although we have continued efforts to conserve energy since FY2013, our emissions have remained about the same.
  For this reason, in FY2019, we set a long-term goal of reducing emissions by 15% by FY2030 compared to FY2013. In addition to our energy conservation activities, we are endeavoring to further reduce GHG emissions by introducing highly-efficient equipment and using renewable energy.
- In FY2019, emissions fell by 3.2% compared to the FY2013 level, in part due to production volume.

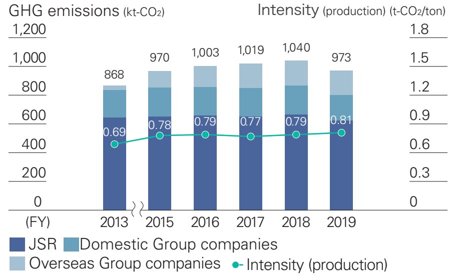
JSR Group

- In FY2019, GHG emissions were down 6% from the previous year due to a slowdown in production. Globally, emission volume is increasing due to the expansion of production bases. In response to the growing proportion of overseas emissions, JSR will work to implement TCFD recommendations worldwide.

Trend for JSR and Reduction Targets for 2030



Trend for JSR Group



Efforts to Conserve Water

Water is an essential resource. Globally, freshwater in particular is a limited and valuable resource. In Japan, as in other countries, water resources are being affected by natural disasters caused by abnormal weather events, some of which are a result of climate change. This makes the appropriate management of water resources a necessity.

JSR Group uses such water resources as a raw material and coolant in its manufacturing processes. We strive to recycle water in our processes and, after it is used, appropriately purify it before discharging it into rivers.

Environment

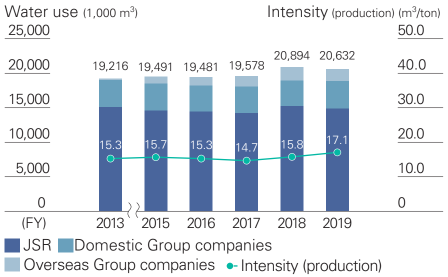
Breakdown of water use (by intake source) and recycling rate

JSR used 14,888,000 m^3 of industrial water, groundwater* and tap water in FY2019. Of this amount, 29.3% was recycled in plant processes. We will endeavor to manage our water resources by continuing this effort with the goal of maintaining the current recycling rate.

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

Global Trend for JSR Group water use and total wastewater

Water use has been rising due to the expansion of overseas production bases, but in FY2019 it was down 1% from the previous year to 20,632,000 m^3, while the total volume of wastewater was 16,049,000 m^3, down 9%. Recognizing the growing attention paid to water resources, JSR will continue to pursue appropriate water resource management.



Efforts and Progress in Chemicals Management

Globally, regulations are tightening to minimize the hazard risks of chemical substances. From the perspective of ensuring product safety, JSR develops products in line with trends in chemical risk evaluations of each country from the design stage onward.

In addition, starting with Europe, legislation is being enacted in various countries to require existing substances to be registered including safety data.

New regulations went into effect in South Korea, Taiwan, and other regions in 2019, but by collaborating with local subsidiaries, JSR has been able to smoothly and effectively respond.

Building a Recycling-Oriented Society: Environmental Efforts to reduce industrial waste

Due to changing waste import regulations in many Asian countries, waste disposal has become a pressing issue in Japan. Meanwhile, the outflow or discharge of waste plastic into the ocean, which causes deterioration of the marine environment and ecosystem, has become a major environmental issue worldwide and demands are growing to build a recycling-oriented society. JSR Group is taking measures to reduce waste generation, thoroughly separate different types of waste, and seek proper recycling destinations, among other steps.

JSR Corporation

JSR's efforts to form a recycling-oriented society include the following.

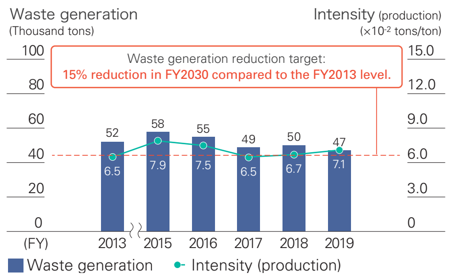
- In FY2018, JSR set a long-term target of reducing the volume of waste generated by 15% in FY2030 compared to FY2013 and is taking steps to generate less waste and promote recycling. The volume of waste generated in FY2019 was down 10.2% compared to FY2013. Efforts to meet this target are ongoing.
- Regarding waste recycling, in addition to promoting the use of cement as a raw material and other recycling approaches in FY2018, JSR also began operation of a new recycling center in the Yokkaichi Plant and is working to separate and recover composite waste.
- Marine waste plastic has become a global environmental issue in recent years. In response to the Japanese government's Resource Circulation Strategy for Plastics, JSR is working to further advance the recycling of waste plastics, in FY2019 setting long-term targets for FY2030 of: 1) 100% recycling (including heat recovery), and 2) 60% recycling (not including heat recovery). JSR will also take other measures to contribute to society, such as raising awareness and promoting the 3Rs in daily life through in-house seminars and road shows, and participating in coastal cleanup activities. In FY2018, JSR helped found the Japan Initiative for Marine Environment (JaIME).
- In FY2019, the waste plastic recycling rate (including heat recovery) was 100% for JSR and 67% for the domestic JSR Group as a whole. Going forward, JSR will continue to promote activities to further improve the recycling rate to achieve its targets.
- Regarding final off-site landfills, JSR has been working toward the target of "zero emissions"* set in FY2000 and efforts have been ongoing since 2003.

* JSR's definition of zero emissions is final off-site landfill volume of 0.1% or less of total generated waste volume

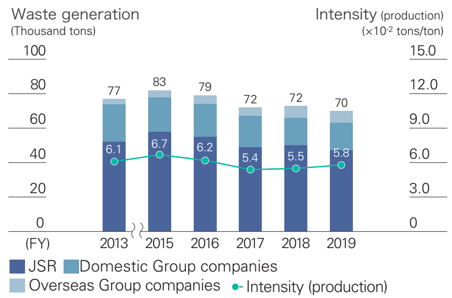
JSR Group

In FY2019, global waste generation was 70,000 tons, a decrease of 3% from the previous year, with a recycling rate of 86%. JSR will pursue waste reduction activities from a long-term perspective.

Trend for JSR and Reduction Targets for 2030



Industrial Waste Trend for JSR Group



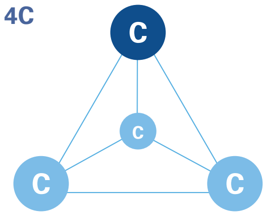
Human Resources

Philosophy

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

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

Course of Action: 4C



Challenge
Communication
Collaboration
Cultivation

Challenge

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

Communication

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

Collaboration

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

Cultivation

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

Diversity of Human Resources and Organizations

JSR promotes diversity in both its human resources and its organizations and continues with efforts to foster mutual recognition.

JSR's efforts to date have been well received. On October 28, 2019, JSR received "Eruboshi" (2nd stage) certification from the Ministry of Health, Labour and Welfare, which recognizes companies that have excelled in promoting the active participation and advancement of women in the workplace. The Group is implementing an HR system that recognizes and accepts not only women but all types of human diversity.

Organizationally, JSR has continued to carry out Work Style Innovation activities since 2017. The process has reaffirmed that, rather than developing uniform, Group-wide measures, there is a need to recognize that missions and systems differ among departments. A culture of mutual recognition is being fostered in which each department takes responsibility for devising measures that take advantage of diversity.

Work Style Innovation (WSI) Activities

Background

At JSR, the Company and its employees are engaged in Work Style Innovation (WSI) activities with the goal of boosting competitiveness and achieving sustainable growth.

To achieve this goal, the Company should encourage the active participation of diverse employees, each department should have a system in place to realize its ideal organization, and employees should work in a healthy and positive manner that balances work and lifestyle. WSI activities aim not only to increase work efficiency, but also to make use of digital resources to reassess the way work is done and dramatically increase productivity. The Group is also transforming its corporate culture to ensure that such initiatives are ongoing.

Initiatives

In the various departments, each employee is involved in discussions around the ideal structure of the organization, identifying issues and developing and executing concrete response measures. Once a year, the Internal Audit Office and Diversity Development Office conduct detailed hearings with each department, identify issues within and across departments, and report to management. Management is also committed to activities such as providing a venue for officers in charge to report on measures proposed by each department. In addition to promoting the use of IT and systems that support diverse work styles, management and employees are engaged in dialogue about desirable work attitudes and styles.

Examples of initiatives undertaken in departments

- Improved labor efficiency in regularly-scheduled repairs in plant districts
- Study of high-location inspections with drones*1 in plant districts
- Use of a chatbot*2 function for responding to common inquiries
- Promotion of IT democratization*3 by systems departments and use of simple web systems that can be created with knowledge of Excel

*1 A small unmanned aircraft that can be operated by remote control *2 An automatic conversation program that uses artificial intelligence *3 Improvement activities conducted together with systems strategy department members to help employees in charge of practical operations improve their productivity with IT

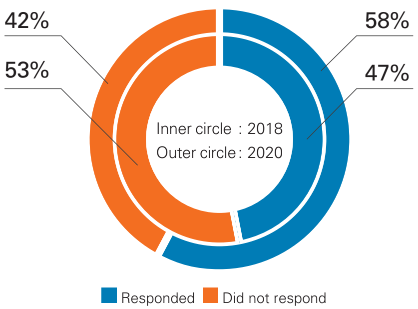
Fact-Finding/Awareness Survey

A survey conducted in May and June 2020 assessed employee participation in, and awareness of, WSI activities. The survey response rate was up compared to 2018, and participation and awareness scores also improved for both managers and general employees, indicating increased dissemination of WSI activities. Almost no respondents reported not knowing the purpose of WSI activities. On the contrary, there was broad understanding among respondents that the goal of WSI activities is to increase work efficiency and productivity, and growing awareness that WSI involves multiple objectives.

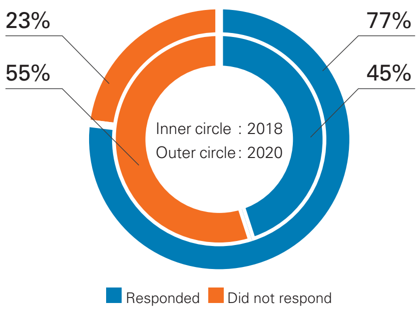
Fact-Finding/Awareness Survey Results

Survey response rate

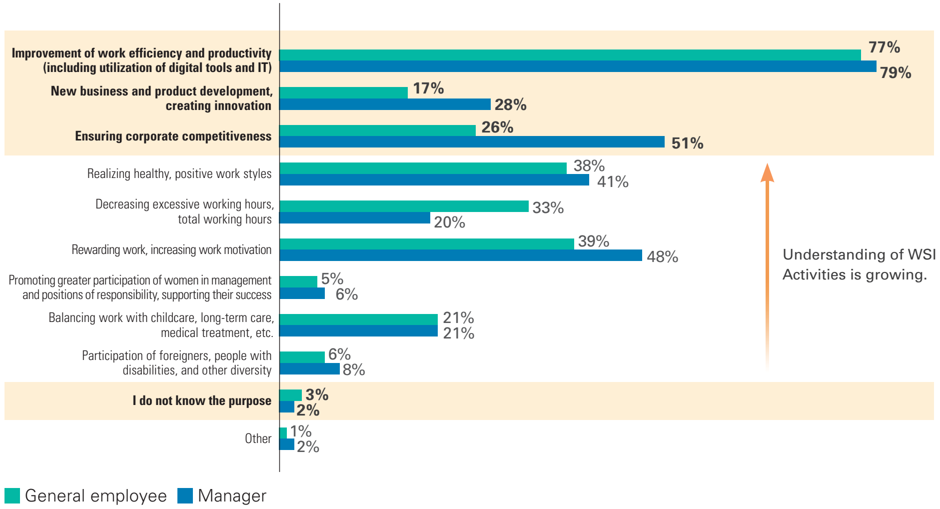
General employee response rate



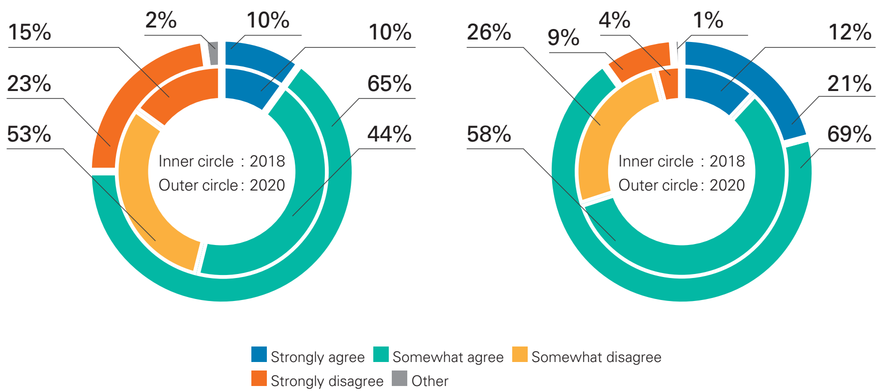
Manager response rate



Understanding of the purpose of Work Style Innovation activities (multiple answers allowed, selection rate shown)



I feel I am participating in WSI activities



Going Forward

An important outcome of our three years of WSI activities has been a shift in the initial perception of WSI activities as simply a means of reducing excessive working hours. By FY2019, most JSR employees had come to realize that WSI activities were essential in empowering each department to achieve performance in its own way while respecting diversity among departments.

To sustain WSI activities going forward, JSR Group will leverage business inventory tools, create opportunities for discussions and seminars, carry out fixed-point observations through awareness surveys, expand horizontally to related departments, and provide case study-based information.

WSI activities have led to a fundamental reassessment of work styles, fostering a culture of mutual recognition of the diversity of human resources and organizations in the Group. JSR is striving to further deepen employee engagement and grow alongside employees.

Workshops for officers and managers

To strengthen managerial involvement, JSR held a total of 30 workshops for all officers and managers in FY2019. As workshop participants thought about the fundamental meaning of working, they gained a deeper understanding of WSI activities and the importance of mutually recognizing the diversity of work styles among departments.

Main feedback from officers

- Since each department's mission differs significantly, it is necessary to think about competitiveness in various ways.
- Increasing productivity and competitiveness must not come at the expense of JSR's basic emphasis on safety.
- With employees from diverse backgrounds, JSR's flexible work system is seen from the outside to be highly attractive.
- Diversity of employee values should also be taken into account in terms of maintaining competitiveness.

Main feedback from managers

- WSI activities should not be construed as activities to reduce overtime.
- WSI activities should be seen as a means of fully reassessing how work is done.
- WSI are activities to realize the ideal form of a department.
- We need activities suited to each department (rather than uniform Company-wide activities).

Initiatives to Develop Diverse Human Resources

Next-generation management

As globalization and digitalization make further inroads, what is required of leaders is also evolving. Since 2007, JSR has been focused on developing leaders by drawing on external support to conduct Next Generation Leader Training. Through case study-based discussions, trainees acquire the business skills next-generation leaders need, such as management standards and the essentials of digital management. Also, through role-playing exercises where they assume the role of the boss, trainees broaden their perspectives by thinking about what is important from a management viewpoint and practicing describing the ideal image of their department. There are already Group officers who are former trainees, and the training has produced numerous, diverse personnel who can think ahead and take initiative in effecting change.

Human resources tied in to technology

JSR is aggressively developing human resources in digital fields in response to the rapid spread of digital transformation (DX). Since 2017, the Group has enlisted US-based DX support company Enthought to run a training program. Engineers have been sent to the US and elsewhere to undergo Python-based advanced analytics training and receive training in research-focused data science. Multiple program graduates are already working at various Group laboratories, providing on-site data management, core system development, simulation technology development, and data analysis automation, helping to raise the level and efficiency of development in each business segment.

Participation in the United Nations Global Compact

JSR Group became a participant in the United Nations Global Compact in April 2009. As such, we will more proactively fulfill our corporate social responsibilities with recognition that businesses operating on a global level must make a greater commitment to human rights, labor, the environment and anti-corruption, as expressed in The Ten Principles of the United Nations Global Compact.

Representative Director, CEO
Eric Johnson

The Ten Principles of the United Nations Global Compact

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

Corporate Governance

Four Characteristics of Corporate Governance at JSR

The Company, by enhancing its corporate governance, endeavors to realize its corporate mission, achieve its business plan, and increase corporate value over the medium to long term.

Introducing the outside officers who ensure the fairness and appropriateness of managerial and oversight functions and management decisions

The current Board of Directors consists of nine (9) directors, three (3) of whom are independent outside directors with vast experience and extensive expertise in the management of corporations and businesses. In the future, the Company will appoint 1/3 (one third) or more independent outside directors with similar experience and expertise in order to enhance corporate value and oversee business management.

The current Audit & Supervisory Board consists of three (3) audit & supervisory board members, two (2) of whom are independent outside audit & supervisory board members with extensive and sophisticated expertise: one is a lawyer and the other is a certified public accountant qualified as a certified public tax accountant. In the future, the Company will appoint two independent outside audit & supervisory board members with vast experience and extensive and sophisticated expertise in such fields as law, accounting, etc., to effectively audit the execution of duties by directors and management.

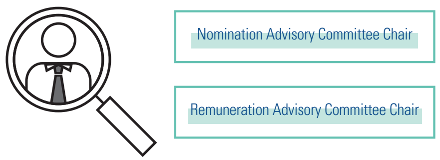
Ratio of independent outside directors with experience in management of corporations

Ratio of outside audit & supervisory board members who are business specialists

100%

The Nomination Advisory Committee and Remuneration Advisory Committee function effectively in appointing and dismissing officers and determining executive remuneration

The Company established the Nomination Advisory Committee of which a majority of members are independent outside directors and the chair of which is a lead independent outside director to ensure the transparency of the policy and procedures of appointing candidates for directors. The committee deliberates criteria for the size, diversity in breadth of knowledge, experience, and capabilities necessary for the Board of Directors as well as criteria and procedures for nominating and/or identifying candidates for future appointment as CEO and/or president, directors, officers with directorship status (including senior officers), and audit & supervisory board members, and submits its findings to the Board of Directors. In addition, the Nomination Advisory Committee evaluates the performance of the CEO and President based on the annual management activity reports submitted each year by the CEO and President, and advises whether improvements to the quality of management are needed. The Company also established the Remuneration Advisory Committee of which a majority of members are independent outside directors and the chair of which is a lead independent outside director in order to ensure the objectivity and transparency of its directors' remuneration framework. The committee deliberates the basic policy of remuneration, the remuneration structure, the mechanism of a performance-based remuneration, the setting of targets, and assessment of performance, and submits its findings to the Board of Directors.



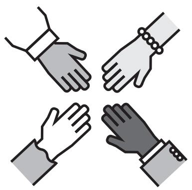
Effective management of a diverse Board of Directors

To respond to globalization, IT, digitalization, and other rapid changes in the business environment, the Company in FY2019 appointed its first non-Japanese CEO to assume responsibility for global management primarily from the United States. In addition, the Company appointed a President and COO who assists the CEO in Japan and oversees the Digital Solutions and Elastomers businesses. At the Ordinary General Meeting of Shareholders held in June 2020, the appointment of a female director from inside the company was approved, and the Company is working to further expand the diversity of the Board.

In addition, the effectiveness of the Company's Board of Directors is evaluated annually. The evaluation determines whether the structure of the Company's Board of Directors is appropriately diverse in terms of nationality and gender and other factors, whether, as a deliberative body, members' experience, skills, and knowledge in specialized fields are being drawn on in overseeing management and encouraging bold decision making and engagement with investors and shareholders, and identifies points that require efforts for improvement.

Going forward, the Company will continue to ensure the diversity of knowledge, experience, and abilities required by the Board of Directors, and work to improve corporate value over the medium and long term from the perspectives of sustainability and resilience.

A Diverse Board of Directors

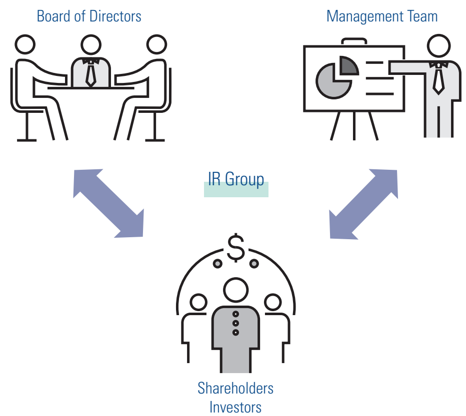


Reflecting the voices of investors and analysts in management

The Company appoints an officer in charge of IR. The CEO, the president or the officer in charge of IR explain, at briefings on business results and the mid-term business plan for institutional investors and/or market analysts, the business performance, financial positions, and the details and progress of the mid-term business plan.

In addition, the CEO, the president or the officer in charge of IR also hold face-to-face meetings with institutional investors, both in Japan and overseas, to explain the above mentioned business results and progress of the mid-term business plan.

In discussions with investors and/or analysts, the Company has strived to appropriately treat insider information and feed back to management and the board of directors the opinions and questions expressed by the investors and/or analysts during such discussions.



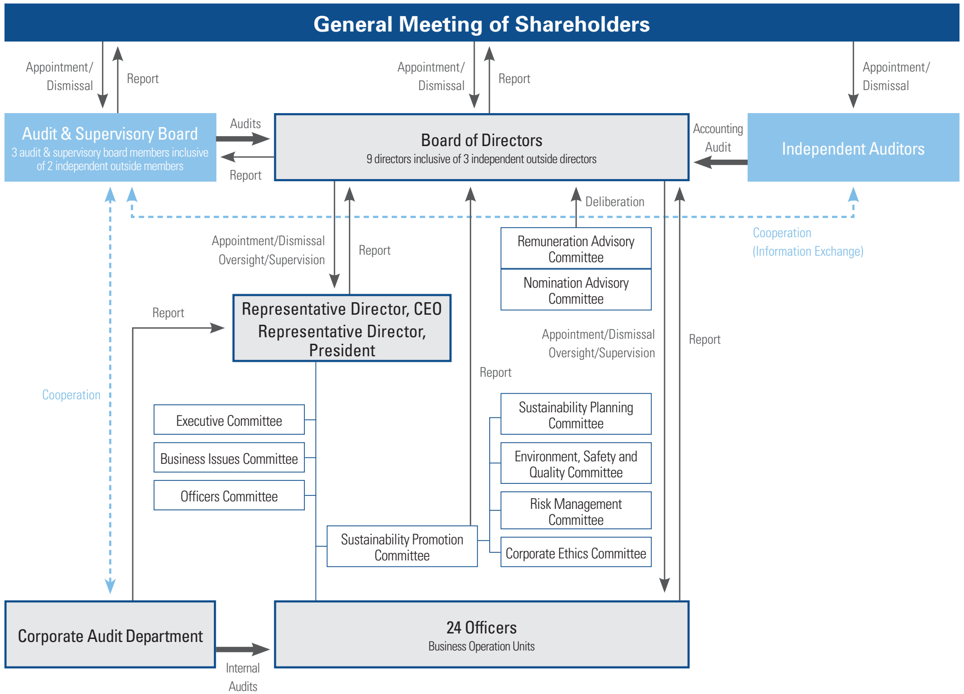
Corporate Governance

Basic Views

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

As a company with audit & supervisory board members, JSR principally monitors and oversees the execution of duties by directors and the management through its Board of Directors and audit & supervisory board members. The Company continuously has strengthened the function of management supervision, improved efficiency in decision making and business duties execution, and enhanced the transparency and soundness of its business management to raise corporate value over the medium to long term. To that end, it has implemented measures, such as the introduction of an officer system, appointment of outside directors and audit & supervisory board members who are independent from the Company and have extensive business experience and expertise, establishment of the Remuneration Advisory Committee and the Nomination Advisory Committee, each of which a majority of members are independent outside directors and the chair of which is an independent outside director, and the introduction of three types of performance-based remuneration for directors, other than outside directors covering short, medium and long term.

Corporate Governance Structure Diagram (As of June 17, 2020)



Corporate Governance Structure

1. Board of Directors

The Board of Directors consists of nine (9) directors, three (3) of whom are independent outside directors with independent and extensive experience in business and management, and holds meetings once a month, in principle. The Board discusses and makes decisions on important business matters, including the direction of the Company's business strategy, and also supervises directors' and officers' execution of their business duties.

To respond to globalization, IT, digitalization, and other rapid changes in the business environment, the Board of Directors in FY2019 approved the appointment of the Company's first non-Japanese CEO to assume responsibility for global management primarily from the United States, as well as of a President and COO to assist the CEO in taking charge of management in Japan. At the Ordinary General Meeting of Shareholders held on June 17, 2020, a proposal to appoint a female director from inside the company was approved, adding further diversity to the Board of Directors. Going forward, based on the findings of the Nomination Advisory Committee, the Company will ensure the diversity of knowledge, experience, and abilities required for the Board of Directors in light of current business strategies, and seek to maintain the optimal Board composition within a twelve (12) member limit.

2. Executive Committee

The Executive Committee holds extensive discussions on items relating to fundamental management initiatives, management policies and management plans, along with important matters concerning the execution of business activities at each department. The committee thus gives direction in relation to these issues or receives reporting. As required, certain items submitted to this committee are passed on to the Board of Directors for further discussion.

This committee is comprised of the CEO, the president, officers with directorship status, and officers appointed by the president, and responds to important business execution with the aim of expediting decision making and improving the efficiency of operations. As a rule, this committee meets once a week, and is chaired by the CEO or the president. The standing audit & supervisory board member also attends these committee meetings.

3. Business Issues Committee

The Business Issues Committee engages in broad-ranging debate about items related to fundamental management strategies and policies, basic policies behind specific projects, and changes to business strategies. It also shares information to ensure a common understanding of

Corporate Governance

such matters and discusses the Company's direction. Its findings are reflected in deliberations of the Board of Directors and the Executive Committee. The Business Issues Committee, which meets twice a month in principle, consists of the CEO, the president and officers with directorship status, and is chaired by the CEO or the president.

4. Officers Committee

This committee consists of the CEO, the president and all officers and aims to ensure members' thorough understanding of business conditions and important business matters. This committee is chaired by the president and the standing audit & supervisory board member is also present.

5. Audit & Supervisory Board and audit & supervisory board members

The Audit & Supervisory Board, consisting of three (3) audit & supervisory board members and holding meetings once monthly in principle as stipulated in the Regulations of the Audit & Supervisory Board, receives reports on important matters, holds discussions, and makes decisions. The two (2) outside audit & supervisory board members are independent, a lawyer and a certified public accountant qualified as a certified public tax accountant, and conduct audits from a standpoint independent from the Company and by using their professional expertise.

In accordance with standards for audits by audit & supervisory board members, the audit & supervisory board members attend meetings of the Board of Directors, and other important meetings, including Executive Committee meetings, to monitor how important decisions are reached and business activities are executed. The audit & supervisory board members also receive reports from independent auditors, directors, and employees. Through these activities, audit & supervisory board members hold the deliberations in order to form auditing opinions.

6. Outline of Audit by audit & supervisory board members, Internal Audit, and Independent Auditors

(1) Audit by audit & supervisory board members

The details of audit by audit & supervisory board members are stated as in the above (5) Audit & Supervisory Board and audit & supervisory board members.

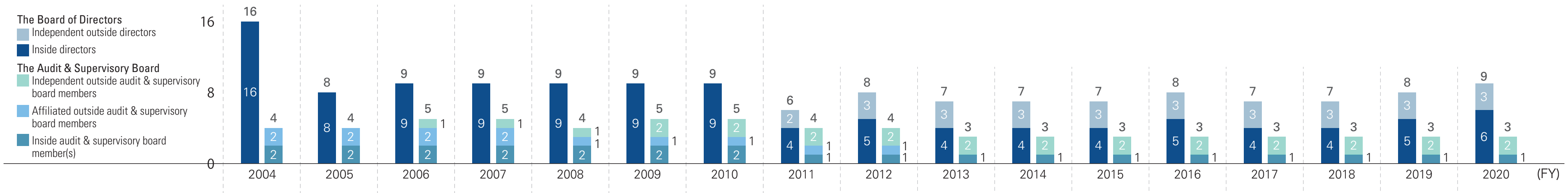
(2) Internal Audit

JSR has established the Corporate Audit Department to improve the effectiveness of the JSR Group's internal control system. In accordance with the internal audit plan, the Corporate Audit Department regularly conducts internal audits such as compliance audits and business operation audits at its divisions and departments as well as its Group companies both in Japan and overseas and reports the audit results to the CEO, the president, related departments, and audit & supervisory board members.

(3) Independent Auditors

JSR's independent auditor is KPMG AZSA LLC. The audit & supervisory board members work closely with the independent auditors. The audit & supervisory board members interview the independent auditors about the audit plan and receive reports on the audit results. Furthermore, the audit & supervisory board members and independent auditors exchange information and opinions as necessary in the course of each fiscal year.

Governance history since 2004



The Board of Directors

- Reduction in term of office of director from 2 years to 1 year (2004)
- Introduction of an officer system (2005)
- Reduction in number of directors from 16 to 8 (2005)
- Appointment of independent outside directors 2 (2011), 3 (2012)
- Establishment of the Remuneration Advisory Committee (2014)
- Establishment of the Nomination Advisory Committee (2015)

The Audit & Supervisory Board

- Appointment of an independent outside audit & supervisory board member(s) (2006)
- Appointment of a certified public accountant as an independent outside audit & supervisory board member (2006)
- Appointment of a lawyer as an independent outside audit & supervisory board member (2009)

Corporate Audit Department

- Internal Audit Department established (now the Corporate Audit Department) (2006)

7. Sustainability Promotion Committee

In order to establish good relationships with various stakeholders and to become a company that is trustworthy and indispensable, the JSR Group has established the Sustainability Promotion Committee with the purpose of shifting its focus from CSR (Corporate Social Responsibility) activities to Sustainability activities that contribute to all stakeholders by creating value through corporate activities.

The Company has set up the following four committees under the Sustainability Promotion Committee: the Sustainability Planning Committee, the Environment, Safety and Quality Committee, the Risk Management Committee, and the Corporate Ethics Committee. The Sustainability Promotion Committee integrates and guides the activities of the above four committees and meets four times each year, along with other meetings as necessary, to further strengthen the management of Company.

Concerning the summary of results of evaluation of the effectiveness of the Company's Board of Directors

The Board of Directors of the Company has been conducting an evaluation in order to maximize corporate value of the Company by enhancing its effectiveness. The FY2019 effectiveness evaluation findings reached the conclusion that the JSR Board of Directors is functioning effectively. Effectiveness evaluations will continue to be performed moving forward.

Summary and Results of Board of Directors Effectiveness Evaluation for FY2019

Overview of Evaluation Results

Evaluation process

The Board of Directors evaluated its effectiveness through a self-assessment while utilizing aggregated data and evaluation support provided by a third party that has expertise in the relevant field.

In November 2019, a questionnaire was distributed to all eight directors (including three independent outside directors) and three audit & supervisory board members of our company (including two independent outside audit & supervisory board members). After collecting questionnaire responses, the board members discussed the results of the questionnaire, as well as the opinions expressed through the questionnaire, and evaluated the effectiveness of the Board of Directors.

Evaluation Results

The Board of Directors is properly structured by consisting of inside and outside directors as well as audit & supervisory board members from diverse perspectives (e.g. different nationalities and gender). The Board of Directors serves as a meeting body that oversees management and encourages top management to make bold decisions by utilizing each member’s experiences, skills, and specialization.

The Nomination Advisory Committee and the Remuneration Advisory Committee are enhancing their supervisory functions by working effectively and providing adequate advice to the Board of Directors while ensuring their own independence and objectivity towards the Board of Directors.

Conclusions

The Board of Directors has drawn the conclusion that “The Board of the Directors of the Company is functioning effectively.”

Things that require improvement

- As ESG investment and activities for the SDGs are becoming increasingly important, the Board of Directors recognizes that it is necessary to increase opportunity to discuss the sustainability & resilient management while taking into account these activities. The Board needs to further monitor activities which allow the Company to proceed with business strategies that focus on “sustainability & resilience” and to enhance corporate value.
- Regarding the composition of the Board of Directors, an outside director who has a thorough knowledge of IT and digital technologies resigned from his position in the middle of the fiscal year. Therefore, the Company needs to find a specialist in this field to fill the position. Besides that, it is also desirable that the Company finds people from diverse backgrounds for its Board of Directors. The Board of Directors hopes that the Company will develop more female employees that assume roles as directors.

Future Activities

- The Board of Directors will appropriately monitor the execution status of a new mid-term business plan which starts in FY2020. From the perspectives of sustainability & resilience, the Board of Directors will also promote integration between sustainability and business strategies, enhance the Company’s operations through resilient activities (establish a multi-layered and robust system, reinvest in the plants and ERP, etc.), in parallel with the growth of major businesses, it will strengthen the Company’s ability to respond to various crises, and maximize its corporate value.
- The Board of Directors once again confirmed the ongoing need to monitor important business issues when evaluating the Board's effectiveness. The business issues listed below will be on the agenda of Board meetings, and Board members will carefully discuss the issues and monitor the status of response measures.

Important business challenges

1. Carry out business based on the “sustainability & resilience.”
2. Streamline the Company’s overall business portfolio and optimize its overall resource allocation.
3. Create business models and business strategies in the Life Sciences Business so that it will become JSR’s third business pillar.
4. In the Elastomers Business whose profitability has declined, determine business strategies and the way the business should be.
5. Expand the portfolio of our Digital Solutions Business which is the primary source of our company’s revenue at the moment.
6. Implement crisis management and response (including Business Continuity Plan (BCP) due to the novel coronavirus).

Going forward, JSR will continue striving to ensure a highly effective Board of Directors based on regular evaluations of its effectiveness.

Assurance of Fairness and Transparency in the Directors' Remuneration Scheme (Initiatives by the Remuneration Advisory Committee)

JSR established the Remuneration Advisory Committee in FY2014. The Committee is chaired by an independent outside director, and consists of three independent outside directors (including the chair) and the Chairman of the Board. The Committee, consulting data and recommendations from outside organizations and taking each fiscal year's business performance and other factors into consideration, reports its findings to the Board of Directors on a fair, transparent, and competitive remuneration framework and remuneration amounts as well as a basic policy on directors' remuneration.

In FY2019 ended in March 2020, the Committee, as in other years, verified the validity of the remuneration framework, remuneration amounts, and the basic policy on directors' remuneration against benchmark data and verified the interconnectedness between the mid-term business plan and the remuneration framework. The Committee also endeavors for full transparency in disclosures of the directors' remuneration framework. The Director Remuneration section in JSR's FY ended in March 2019 Annual Report was mentioned on the Japanese Financial Services Agency's website as an example of best practices.

Principles on remuneration for directors and audit & supervisory board members

In order to maintain the competitive advantages of JSR Group as a global company, the Company has established principles on remuneration for directors and audit & supervisory board members which enable the Company to develop and recruit internationally competitive and diverse human resources capable of managing the businesses, and to provide short-, mid- and long-term incentives for its directors that are aligned with the benefit of its shareholders, and to encourage and motivate its management, while maintaining the transparency and accountability, to accomplish the management strategies and business strategies of the Company. Remuneration framework should:

(1) attract, secure, and reward diverse and excellent personnel regardless of nationality for the purpose of further enhancing and improving its competitive advantages and global management;

(2) encourage the management to demonstrate healthy entrepreneurial spirit by motivating them to achieve the objectives of business strategies aiming at continuous growth; and

(3) promote medium- to long-term improvement in corporate value by sharing the benefit between management and shareholders via the reinforcement of stock ownership during his/her term of office as director.

Remuneration Structure

Remuneration for directors of the Company consists of basic remuneration, annual bonuses linked to the annual business performance of the Company, and Mid-Term Performance-Linked Bonus that are linked to the level of achievement of medium- to long-term results and Restricted Stock Share as Remuneration designed to facilitate earlier sharing of corporate values between directors and the shareholders of the Company. However, remuneration for outside directors and audit & supervisory board members, in light of their roles, consists only of basic remuneration. Remuneration for the Chairman of the Board consists of 3 (three) types of remuneration: a fixed basic remuneration, a Mid-Term Performance-Linked Bonus, and Restricted Stock Share as Remuneration in a similar manner as described above. The Chairman of the Board of the board, who is responsible for monitoring and supervising the Board while striving to improve corporate value from a perspective different from that of executive directors engaged in business execution, is excluded from performance-based annual bonuses.

The table below shows each remuneration composition when basic remuneration is set at 100 and the standard amount of the performance-linked remuneration is set when a target has been achieved 100%.

Remuneration System

		Basic Remuneration	Performance-Linked Remuneration			Basic remuneration vs. performance-linked remuneration
			Annual Bonus	Mid-Term Performance-Linked Bonus	Restricted Stock Share as Remuneration	
Directors (not including outside directors)	CEO	100	100	About 133	About 67	100:300
	President	100	30	50	25	100:105
	Chairman of the Board	100	0	50	25	100:75
	Concurrently serve as Executive Managing Officer / Managing Officer/ Senior Officer	100	25	30	15	100:70

* In view of the duties involved, an annual bonus has not been paid to the Chairman of the Board since 2020.

Appropriateness of the remuneration level of the Company

When considering the above mentioned remuneration structure and composition thereof, the Remuneration Advisory Committee verifies the appropriateness of the level of remuneration through annual benchmarking study by using the remuneration database possessed by a third party consultant specialized in remuneration for executives and by comparing with the companies whose size, type, and line of business are similar to those of the Company.

In addition, when determining the composition of performance-linked remunerations and other remuneration for the director who is responsible for overseeing and managing the Company's international businesses, the Remuneration Advisory Committee verifies the appropriateness of remuneration level for such director through another annual benchmarking study using a method similar to the one described above and using the survey data on remuneration prevailing in the region where such director is responsible for as well as considering each director's job responsibilities and the magnitude of impact on management of the JSR Group.

Procedures for determining remuneration, etc.

In relation to remuneration for the directors, the Board of Directors (referred to as "BOD" in this section) deliberates and determines the policies of remuneration for directors, remuneration framework, and amount of remuneration for individual directors.

In order to ensure independence and objectivity during deliberation and decision-making processes at the BOD mentioned above and to enhance monitoring function and accountability of the BOD, the Company established the Remuneration Advisory Committee as an advisory body for the BOD.

Items for deliberation and reports by the Remuneration Advisory Committee

The Remuneration Advisory Committee, upon an inquiry from the BOD, deliberates the remuneration of the eligible persons and related items as listed below and reports the result to the BOD, or provides the Audit & Supervisory Board with advice.

Persons eligible: Inside directors (including representative directors and executive directors), outside directors, audit & supervisory board members, officers, executive advisors, senior advisors, and other important employees

Items for deliberation: Establishment of the remuneration policies, designing the remuneration framework, setting performance targets, reviewing rationale of incentive remunerations, appropriateness of the level and composition of the remunerations, and determination of the amount of remuneration of each position based on the remuneration framework and others

Composition of the Remuneration Advisory Committee and attributes of Chairperson

The Remuneration Advisory Committee consists of at least 3 committee members, and more than half of the members shall be independent outside directors, of which a chairperson shall be elected from independent outside directors by resolution of the BOD in order to ensure independence, objectivity, and accountability as well as effectiveness of the Remuneration Advisory Committee.

In addition, a third party consultant, specialist in this field, and staff members for the Committee also attend the Remuneration Advisory Committee meetings as observers.

Annual Bonus Payout Ratio Targets and Results (FY2019)

	Performance Evaluation Reference		Payout Ratio
	Target	Result	
Consolidated Revenue	508.0 billion yen	472.0 billion yen	26.2%
Consolidated Operating Profit	44.5 billion yen	32.9 billion yen	46.7%

* (Notes on the Payout Ratio in the table above) As the consolidated revenue and operating income were affected by reduction in raw materials for petrochemical businesses and the extraordinary losses etc., the Company set the payout ratio relating thereto at 26.2% and 46.7%, respectively by re-calculating consolidated revenue and operating income after excluding such temporary factors in accordance with the suggestion by the Remuneration Advisory Committee. As a result, the payout ratio for Annual Bonuses was about 37% by averaging those from consolidated annual revenue and operating profit, respectively (reflecting evaluation result of performance of the Group as a whole).

Annual Bonus Payout Ratio Range (FY2019)

	Range of Payout Ratio corresponding to the result of the Performance Evaluation Reference		
Payout Ratio	0%	100%(Target)	200%
Consolidated Revenue	471.9 billion yen or less	508.0 billion yen	544.1 billion yen or more
Consolidated Operating Profit	29.1 billion yen or less	44.5 billion yen	59.9 billion yen or more

3-Year Average of Consolidated Annual ROE

FY Mar 2016	FY Mar 2017	FY Mar 2018	FY Mar 2019	FY Mar 2020
6.8%	8.4%	8.8%	7.8%	5.7%

	Target	Actual	Payout Ratio
FY Mar 2016-FY Mar 2018	10%	8.0%	50%
FY Mar 2017-FY Mar 2019	10%	8.3%	58.3%
FY Mar 2018-FY Mar 2020	10%	7.4%	50%

Range of Mid-Term Performance-Linked Bonus Payout Ratio (FY2019)

	Range of Payout Ratio corresponding to the actual ROE of the most recent 3-year average				
Actual ROE average	less than 6%	6% or more	8%	10%	12% or more
Payout Ratio	0%	50%	50%	100%(target)	150%

* Payout Ratio is 50% when actual ROE average is between 6% and 8% and is calculated proportionately in accordance with the above table when actual ROE average is between 8% and 12%.

Succession and Evaluation of the Group's Management Structure (Initiatives by the Nomination Advisory Committee

The Nomination Advisory Committee was established in FY2015. Currently, the Committee consists of three independent outside directors (one of whom is the chair), as well as the CEO and the President and COO. The Committee carries out objective and long-term examinations of appointments and dismissals of the CEO and President, the Board of Directors' composition and elections, the Group's management structure, and succession plans for vital management posts. In FY2019, the Committee carried out a follow-up review and evaluation of the new management structure and monitored such initiatives as the Board of Directors' composition and elections and the nurturing and training status of next-generation management candidates. Furthermore, the CEO and President submit annual management activity reports to the Committee, which deliberates on the nomination and removal/dismissal of top management and makes recommendations to the Board of Directors.

Nomination Advisory Committee

JSR established the Nomination Advisory Committee to ensure the transparency of the policy and procedures of appointing candidates for directors, audit & supervisory board members and officers with directorship status (including senior officers). A majority of Committee members are independent outside directors and the chair is also an independent outside director.
The committee deliberates the standard for the diversity in breadth of knowledge, experience, and capability necessary for the Board of Directors, criteria and procedures for the nomination, and candidates for future appointment as CEO, the president, directors, officers with directorship status (including senior officers), and audit & supervisory board members, and reports its findings to the Board of Directors.

In addition, the CEO and/or the president submit to the Committee an annual report on a broad range of strategic management activities. Based on the report, the Committee assesses the business result and performance of the CEO and/or the president and advises the Board of Directors whether or not improvement in management quality is necessary.

Dismissal of Directors

The Committee will deliberate and report to the Board of Directors in a timely fashion when the Committee judges there arises a reason that necessitates dismissal of directors including the CEO. In order to ensure transparency of the deliberation, the Committee takes necessary measures such as deliberation solely among outside independent directors for the agenda relating to appointment/reappointment or dismissal of CEO.

Upon receipt of the aforementioned annual management activities report and based on the business result and performance evaluation of the CEO and/or the president as well as business circumstances and economic outlook, etc., the Committee annually deliberates and judges appropriateness of the appointment, dismissal of the CEO and/or the president and terms of office.

Criteria for appointing candidates for directors

When nominating candidates for directors, JSR makes it a rule to ensure an appropriate balance among diversity in breadth of knowledge, experience, and capability essential to the Board of Directors and the size thereof in order to make important management decisions and oversee the execution of duties in an appropriate and timely fashion. JSR appoints persons who are mentally and physically sound and have an exceptional personality and popularity, and high principles and ethical view. In light of these considerations, JSR appoints as candidates for inside directors persons who have extensive knowledge, experience, and high capability with a superior track record in such fields as business management (including international), R&D, manufacturing, manufacturing technology, human resources, and finance and accounting, etc. JSR appoints as candidates for outside directors persons who have independence, vast experience and extensive expertise of management of the major companies in various fields and of business management both in Japan and overseas as well as the capability to actively express opinions and raise issues on growth strategy and enhancement of governance from a broad perspective.

Criteria for appointing candidates for audit & supervisory board member

From the perspective of ensuring the transparency and soundness of business management through auditing the process of directors' decision making and execution of duties in accordance with laws and regulations, such as the Companies Act, the articles of incorporation and internal rules, JSR appoints persons with vast experience and extensive and sophisticated expertise necessary for audit (including one person with sufficient knowledge of finance and accounting) among those who are mentally and physically sound and have an exceptional personality and popularity, and high principles and ethical view. Regarding candidates for outside audit & supervisory board members, in particular, JSR nominates persons who have independence and extensive experience and knowledge of laws and accounting.

Policy for training directors and audit & supervisory board members

JSR conducts introductory seminars and plant and laboratory tours and other opportunities for newly elected officers, given their potential as future director candidates, to deepen their understanding of the Company and its businesses.

Moreover, when a Board of Directors meeting is held, JSR picks up key issues closely related to its businesses as "Specific Themes for Review and Discussion" and thereby provides an opportunity to exchange opinions on such themes. This opportunity helps directors and audit & supervisory board members not only deepen their understanding of the Company's business challenges but also promotes communication between board members. Furthermore, JSR holds regular seminars by outside lecturers prior to the ordinary general meeting of shareholders to review the status of corporate governance in general and legal reforms.

Succession Plan

The Committee systematically develops and selects candidates for the successor to the CEO and/or the president in an objective and transparent manner by providing the pool of candidates with necessary training and coaching to enhance skills and leadership and by actively participating in the selection process through interviews, etc.

Policy on constructive dialogue with shareholders

To promote constructive dialogue with shareholders and investors, officers responsible for the Accounting and Finance Department and the Corporate Communications Department take charge of IR activities, and work together to facilitate dialogue. JSR holds an analyst meeting every quarter and a mid-term business plan briefing once every fiscal year. In such meetings, the CEO, the president or an officer in charge of IR, explain business performance, financial position, details and progress of the mid-term business plan to analysts. Every year, the CEO, the president or an officer in charge of IR holds interviews with major institutional investors in Japan and overseas to explain the details and progress of the mid-term business plan. JSR has been endeavoring to provide investors with Company information on its website, such as financial statements, information on mid-term business plans and progress thereof, and details of business performance of main businesses, as well as information on CSR activities including efforts to conserve the environment and responsible care, and on R&D activities. Opinions and questions that JSR receives from investors through the above-mentioned discussions are fed back to management as IR activity reports. In discussions with shareholders, JSR has appropriately treated insider information (setting moratoriums from the start of a new fiscal year to the day of announcing business results, establishing regulations for preventing insider trading, and conducting employee education seminars).

Independent Outside Directors (As of June 17, 2020)

The Company has appointed 3 independent outside directors to further strengthen the functions of the Board of Directors to supervise management and make decisions in a timely and appropriate manner.

By appointing independent outside directors with a broad range of corporate management experiences and an independent perspective as outside personnel, the Company ensures fair and reasonable business judgement and transparent and sound management.

Yuzuru Matsuda

Mr. Matsuda served as the President and Chief Operating Officer of KYOWA HAKKO KOGYO CO., LTD and Kyowa Hakko Kirin, Co., Ltd (currently known as Kyowa Kirin Co., Ltd.) as well as an Advisor to Kyowa Hakko Kirin. He has vast experience in corporate management for global companies especially in the field of medical products and biochemical. He also possesses the independent perspective as outside personnel. He has utilized his experiences and independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level, and to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgement and transparent and sound management, thereby continually contributing further to the enhancement of JSR Group's corporate value. He is therefore appointed again as an outside director.

Shiro Sugata

Mr. Sugata served as the Representative Director and President of USHIO INC., where he currently serves as Advisor. He also served as Vice Chairman, Executive Director at the Japan Association of Corporate Executives. He has vast experience in the corporate management of global companies especially in the field of optical application products and industrial machineries and also has experience obtained through activities in the business community, and possesses the perspective as independent outside personnel. He has utilized his experiences and independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level, and to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgement and transparent and sound management, thereby continually contributing further to the enhancement of JSR Group's corporate value.
He is therefore appointed again as an outside director.

Tadayuki Seki

Mr. Seki served as the Representative Director and Executive Vice President and thereafter as an Advisory Member at ITOCHU Corporation. He has vast experience in the corporate management of a general trading company which operates a global trading business and possesses the perspective of independent outside personnel. He has utilized his experiences and independent viewpoints to help the Company in making crucial decisions, to supervise the performance of duty at the BOD level, and to strengthen the Company's fair corporate governance through enhancement of fair and reasonable business judgement and transparent and sound management, thereby continually contributing further to the enhancement of JSR Group's corporate value. He is therefore appointed again as an outside director.

Directors and Audit & Supervisory Board Members (As of June 17, 2020)

Representative Director, CEO
Eric Johnson
North America Business
President of JSR North America Holdings, Inc.

Representative Director, President, COO
Nobuo Kawahashi

Director, Chairman of the Board
Mitsunobu Koshiba

Director, Executive Managing Officer
Koichi Kawasaki
Manufacturing and Technology, Product Safety & Quality Assurance, Safety and Environment Affairs, Human Resources, Diversity Development
President of Japan Butyl Co., Ltd.

Director, Managing Officer
Hideki Miyazaki
Accounting, Finance, Corporate Communications, IT Strategy,
Cyber Security Management, Business Process Renovation

Director, Senior Officer
Mika Nakayama
Sustainability Promotion
General Manager of Sustainability Promotion Dept.

Outside Director
Yuzuru Matsuda

Outside Director
Shiro Sugata

Outside Director
Tadayuki Seki

Standing Audit & Supervisory Board Member
Tomoaki Iwabuchi

Outside Audit & Supervisory Board Member
Hisako Kato

Outside Audit & Supervisory Board Member
Sumio Moriwaki

Officers (As of June 17, 2020)*

Managing Officer
Hayato Hirano
Supervising Elastomers Business, Plastics Business

Managing Officer
Katsuya Inoue
Corporate Planning, Emerging Business, Office of the CEO General Manager of Corporate Planning Div.
General Manager of Office of the CEO
General Manager of Investment, Business Innovation
Executive Officer of JSR Active Innovation Fund, LLC

Managing Officer
Tadahiro Suhara
Supervising Digital Solutions Business
Representative Director of JSR Micro Korea Co., Ltd.

Senior Officer
Kazumasa Yamawaki
Plastics Business
President of Techno UMG Co., Ltd.

Senior Officer
Makoto Doi
Legal, General Affairs, Secretarial Office
General Manager of Legal Dept.

Senior Officer
Yoshikazu Yamaguchi
Electronic Materials Business
General Manager of Electronic Materials Div.
General Manager of Taiwan Branch., Electronic Materials Div.

Senior Officer
Kazushi Abe
Elastomers Business
General Manager of Elastomer Div.
President of ELASTOMIX CO., LTD.
Director and President of KRATON JSR ELASTOMERS K.K
President of ELASTOMIX(FOSHAN)CO., LTD.
Representative Director of JSR Elastomer Europe GmbH

Officer
Koichi Saeki
Yokkaichi Plant
Yokkaichi Plant Manager

Senior Officer
Seiji Takahashi
Manufacturing and Technology (Deputy), Procurement, Logistics
General Manager of SSBR Global Manufacturing & Technology Management Dept.

Officer
Eiichi Kobayashi
Executive Vice President of JSR North America Holdings, Inc.

Officer
Yoichi Mizuno
Edge Computing Business
General Manager of Edge Computing Div.

Officer
Yasufumi Fujii
General Manager of Corporate Audit Dept.

Officer
Mikio Yamachika
Manufacturing and Technology (Deputy)

Officer
Tim Lowery
Life Sciences Business
General Manager of Life Sciences Div.
President of JSR Life Sciences, LLC

Officer
Koichi Hara
Executive Vice President of JSR North America Holdings, Inc.

Officer
Junichi Takahashi
Product Safety & Quality Assurance (Deputy)

Officer
Keisuke Wakiyama
Display Solution Business, China Business
General Manager of Display Solution Business Div.
Chairman of JSR (Shanghai) Co., Ltd
Chairman of JSR Micro (Changshu) Co., Ltd.
Chairman of JSR Display Technology (Shanghai) Co., Ltd.

Officer
Ichiko Tachibana
General Manager of Support Dept., Emerging Business
JSR Active Innovation Fund, LLC

Officer
Toru Kimura
Research & Development (CTO)
General Manager of Research & Development
General Manager of RD Technology and Digital Transformation Center

Officer
Yutaka Yoshimoto
Office of President
General Manager of Office of President

Officer
Hiroaki Tokuhisa
Research & Development (Deputy)
General Manager of Yokkaichi Research Center
General Manager of Performance Polymer Research Laboratories
General Manager of Tire Materials Technology Development Center

* excluding those who concurrently serve as directors

Compliance

1. Philosophy

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

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

2. JSR Group Principles of Corporate Ethics

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

JSR Group shall never require directors and employees of Group companies to act in violation of this Codes of Conduct. Additionally, JSR Group shall not disadvantage any director or employee who refuses to execute an order to perform an act that is in violation of the Codes of Conduct because of that refusal.

3. Corporate Ethics Activities

(1) Corporate Ethics Awareness Survey

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

(2) Hotline (Internal Reporting Channels)

① Hotline for Employees

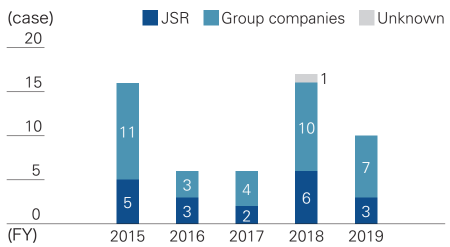
The JSR Group has introduced a system of internal reporting channels called the "Corporate Ethics Hotline." An internal hotline is connected to the Corporate Ethics Committee in JSR or the relevant Group company. An external hotline is set up to connect to two contact points. One is a designated independent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

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

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

Ten reports were received during FY2019. Of them, five involved abuse of power.

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



② Hotline for Business Partners

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

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

4. Legal Compliance Measures

Every JSR Group member defines legal compliance regulations that form the basis of its legal compliance. Each company then uses the regulations to solidify its compliance through regular review and improvement as well as legal training to increase awareness of laws and regulations and instill commitment to compliance. JSR Group establishes specific systems and executes other priority approaches to ensure compliance with laws and regulations that are particularly relevant to the execution of business.

① Approach to Preventing Bribery and Unfair Competition

JSR has formulated a "Policy for Bribery Prevention," "Rules on Complying with Anti-Corruption Laws" and "Standards for Gift-Giving and Entertaining" that specify necessary items for all executives and employees to comply with the Japanese Unfair Competition Prevention Act, The U.S.

Risk Management

Foreign Corrupt Practices Act, The U.K. Bribery Act and other anti-corruption laws.

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

5. Protection of Personal Information

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

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

1. Philosophy

JSR Group believes that preventing a major crisis from occurring and minimizing its impacts on business activities is an important management role. The Group has formulated Risk Management Policies and established a Risk Management Committee through which it actively pursues risk management activities.

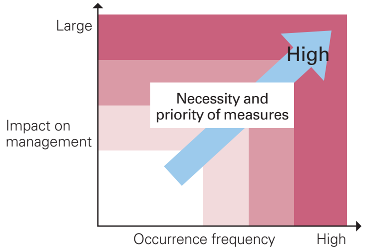
2. Risk Management Measures

(1) Identifying Risks and Selecting Important Risks

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

Utilizing a risk map that represents level of business impact and frequency of occurrence, we identify risks that could have a significant impact on business continuity and organize those risks into the JSR Group Risk Factors. By monitoring and regularly reviewing risks that senior management has personally ascertained, we are building and maintaining a system for prevention and crisis preparedness.

Conceptual diagram of risk map



(2) Crisis Management Training

JSR has formulated BCM procedures that summarize the BCM/BCP* systems in place for both normal circumstances and emergency situations. These procedures define the BCM organization and the actual BCP which includes stipulations on target recovery times, and BCP activation and cancellation standards. They also define the organizational structure that takes effect during activations of the BCP and corresponding priority businesses and operations.

Moreover, we maintain a stable supply of funds on hand to allow us to manage our businesses flexibly if a major risk arises. We also acquire issuer ratings and commercial paper ratings from rating agencies each year. JSR's rating information is available on rating agencies' websites as well as the JSR website.

Amid concerns of a global economic slowdown resulting from the COVID-19 pandemic, we issued three types of unsecured straight bonds with a total value of JPY 35 billion on May 8, 2020.

* BCM: Business Continuity Management/BCP: Business Continuity Plan
A BCP defines activities that need to be conducted before the occurrence of an emergency situation that may threaten the survival of a company (large-scale natural disaster, explosion/fire, terrorist attack, etc.), judgment criteria and action guidelines that enable business continuity in the event of such emergencies, and other matters necessary for ensuring the continuity and early restoration of important businesses. BCM is a management system that has been developed to operate and continuously improve the BCP through a PDCA (plan-do-check-act) cycle.

(3) Enhancing Information Security

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

< Information Security Policy >

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

Response to COVID-19

In view of the COVID-19 pandemic’s spread, we established a COVID-19 Response Committee led by the President at the end of January 2020. The committee’s first actions were to gather information in China, determine responses to be taken by local subsidiaries, and provide support. As it became clear that the pandemic was spreading to Japan and the rest of the world, we set up a BCP (Business Continuity Plan) Committee in mid-February. The committee quickly completed various measures taken with recognition that JSR Group is part of a materials industry that supports key industries around the world. They included establishing a code of conduct for maintaining operations at important manufacturing and R&D centers of the Group in Japan, Asia, Europe, and the United States; enforcing the supply of protective equipment and its use; stopping visits from outside personnel; sharing information with employees throughout the world; and establishing work-from-home environments at all business bases. The details of the BCP Committee's actions are also being shared with outside directors and auditors.

While respecting the cultural differences and individuality of JSR business bases around the globe, we are striving to manage the crisis and maintain our business by engaging in speedy and integrated information management within the BCP Committee and linking it to appropriate action. We are also endeavoring to post information concerning stakeholders on the "JSR's Response to COVID-19" page of the JSR website and to disclose new information as it becomes available.

JSR's Response to COVID-19
https://www.jsr.co.jp/jsr_e/covid19/response/

Supply Chain Management

1. Philosophy

We believe that an important role of JSR Group is to offer innovative materials and excellent products that meet customer needs and contribute to the making of a better society. We are able to respond to social issues through our business partners and supply chain management.

2. Supply Chain Management

(1) CSR/sustainable procurement

JSR Group is in a unique position as a chemicals manufacturer to deliver quality products to various industries to support society.

Supply chain management is specific to each of the businesses and is therefore different in the Elastomers, Plastics, Digital Solutions, and Life Sciences Business. The JSR Group Purchasing Policy states that when making purchases, JSR will give sufficient consideration to legal and regulatory compliance, resource protection, environmental conservation, safety, human rights, biodiversity, and other factors that lead to a sustainable society. With suppliers' understanding, and through communication, mutual understanding, and cooperation, we can continue engaging in effective initiatives.

Based on our Purchasing Policy and CSR/sustainable procurement initiatives implemented in FY2010, we surveyed the social and environmental considerations of our suppliers using a questionnaire. When an issue was detected, we dispatched the person in charge of procurement to the supplier to work on solving the issue together. We were able to survey the suppliers that represent 99% of our purchased materials by FY2013. We will continue to conduct the same process as we establish new suppliers in the future.

Additionally, amid recent globalization of the supply chain, issues such as forced labor, child labor, environmental destruction, global warming, and corporate scandals have occurred, and boycotts and demand for improvement are being seen. Such developments are beginning to have significant impacts on corporate activities. In response, we revamped and expanded the questionnaire items used for surveying CSR/sustainable procurement in FY2017. We are now conducting the second round of surveys using this revised questionnaire.

Moreover, understanding that engaging in supply chain management in this way brings mutual prosperity to both JSR Group and our business partners. We rearranged the items that JSR Group wants business partners to comply with on the revised questionnaire and newly formulated the "JSR Group CSR/Sustainable Procurement Policy" in December 2018. We are distributing the new policy to our business partners asking them to adopt and communicate it within their organizations.

(2) Green procurement of raw materials

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

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

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

Sustainability Performance

Evaluation by Outside Organization

The JSR Group is highly regarded for its sustainability activities and other non-financial initiatives, as reflected by its inclusion in international socially responsible investment indexes and investment universes. Also, the JSR Group has been selected for inclusion in the FTSE Blossom Japan Index and MSCI Japan Empowering Women Index (WIN), S&P/JPX Carbon Efficient Index, which are ESG indexes selected by Government Pension Investment Fund (GPIF).

Inclusion in ESG indexes, socially responsible investment (SRI) indexes and investment universes (Current as of July 1, 2020)

FTSE4Good (U.K.)

For 16 consecutive years since 2004 we have been selected by FTSE Russell as a constituent of the FTSE4Good Index Series.

EURONEXT Vigeo Eiris World 120 (France)

We are reconfirmed for inclusion in the EURONEXT Vigeo Eiris World 120 Index as a global company with outstanding ESG (environment, social, governance) performance.

ETHIBEL PIONEER & EXCELLENCE Investment Registers (Belgium)

On May 8, 2020, we were reconfirmed for inclusion in the ETHIBEL PIONEER & EXCELLENCE Investment Registers, which is an international SRI universe.

FTSE Blossom Japan Index (Japan)

We were selected as an investment brand of the "FTSE Blossom Japan Index" for being a Japanese company with excellent consideration for ESG (Environment, Social, and Governance).

MSCI Japan Empowering Women Index (WIN) (Japan)

We were selected by MSCI as an investment brand of the "MSCI Japan Empowering Women Index (WIN)" for being a company with excellent gender diversity.

* The inclusion of JSR Corporation in MSCI indexes, as well as the use of the MSCI logo, trademark, service mark and index name, does not constitute support, endorsement or promotion of MSCI or any MSCI-affiliated company by JSR Corporation. MSCI indexes are the sole property of MSCI. MSCI and all MSCI index names and logos are the trademark or service mark of MSCI and its affiliated companies.

S&P/JPX Carbon Efficient Index (Japan)

We were selected for inclusion in the S&P/JPX Carbon Efficient Index by the S&P Dow Jones Index.

SOMPO Sustainability Index (Japan)

In recognition of our standing as a company with a high ESG (Environment, Social, and Governance) evaluation, we were reconfirmed by Sompo Asset Management Co., Ltd. as a brand to be included in the SOMPO Sustainability Index.

2020 Certified Health & Productivity Management Outstanding Organizations Recognition Program (Japan)

We were selected by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi as a company practicing outstanding health and productivity management.

The JSR Group has continually been ranked in the Global Compact 100 since FY2013.

Main Group Enterprises (As of September 30, 2020)

Head Office

JSR Corporation
Shiodome Sumitomo Bldg. 1-9-2, Higashi-Shimbashi, Minato-ku, Tokyo 105-8640 Japan

Branch Office

Nagoya Branch
Dai Nagoya Building 15F 3-28-12 Meieki, Nakamura-ku, Nagoya-shi, Aichi 450-6415 Japan

Taiwan Branch
17F-C1, No.8, Zihciang S. Rd., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.

Plants

Yokkaichi Plant
100, Kawajiricho, Yokkaichi-shi, Mie 510-8552 Japan

Chiba Plant
5, Chigusakaigan, Ichihara-shi, Chiba 299-0108 Japan

Kashima Plant
34-1, Towada, Kamisu-shi, Ibaraki 314-0102 Japan

Laboratories

Yokkaichi Research Center
100, Kawajiricho, Yokkaichi-shi, Mie 510-8552 Japan

Tsukuba Research Laboratories
25, Miyukigaoka, Tsukuba-shi, Ibaraki 305-0841 Japan

JSR-Keio University Medical and Chemical Innovation Center
35, Shinanomachi, Shinjuku-ku, Tokyo 160-8582 Japan

JSR-UTokyo Collaboration Hub, CURIE
Department of Physics, Graduate School of Science, The University of Tokyo 7-3-1
Hongo, Bunkyo-ku, Tokyo 113-0033 JAPAN

JAPAN

Digital Solutions Business

D-MEC Ltd.
3D model generation, analysis by CAE and sales of solid modeling system and optically-hardened resins

JSR Micro Kyushu Co., Ltd.
Production of semiconductor materials and display materials

JAPAN FINE COATINGS Co., Ltd.
Sales and manufacture of coating materials for fiber-optic cables reinforced by ultraviolet or electron radiation and for other apparatus

Life Sciences Business

JSR Life Sciences Corporation
Manufacture of life sciences related materials

MEDICAL & BIOLOGICAL LABORATORIES CO.,LTD.
R&D, manufacture and sales of diagnostic and research reagents and companion diagnostics development service

LEXI Co., Ltd.
Development, sales, and services of software and devices for supporting surgical operations

Rapithela Corporation
Digital design and fabrication support service for prosthetics and orthotics

MBL Venture Capital Co., Ltd.
Investment in biotechnology-related ventures and business consulting

G&G Science Co., Ltd.
R&D of genetic testing agents

Elastomers Business

ELASTOMIX CO., LTD.
Compounding of crude rubber and sales of compounded products

Japan Butyl Co., Ltd.
Production and sales of butyl rubber

KRATON JSR ELASTOMERS K.K.
Production, purchase, and sales of thermoplastic rubber

Emulsion Technology Co., Ltd.
Compounding and sales of crude latex

Plastics Business

Techno-UMG Co., Ltd.
Production, sales and R&D of ABS resin

JAPAN COLORING CO., LTD.
Coloring and sales of synthetic resins

Other Businesses

JSR Trading Co., Ltd.
Export, purchase and sale of various chemicals and distribution materials. Purchase and wholesale of various equipment

JEY-TRANS CO., LTD.
Freight forwarding, warehousing, delivery management

JSR Logistics & Customer Center Co., Ltd.
Customer service agent and logistics management

JSR ENGINEERING CO., LTD.
Engineering and consultation for chemical engineering equipment

JSR Business Services Co., Ltd.
Human resources, payroll calculation, welfare, general affairs

JN System Partners Co., Ltd.
Computer system design, programming, operation and maintenance

Goko Trading Co., Ltd.
Export, import, purchase and sale of various chemicals and distribution materials. Purchase and wholesale of various equipment

JSR Active Innovation Fund, LLC
Investment for start-ups and support for developing investees businesses

Overseas

Digital Solutions Business

JSR Micro N.V.
Production and sales of semiconductor materials and life sciences related materials

JSR Micro, Inc.
Production and sales of semiconductor materials

JSR Micro Korea Co., Ltd.
Design, development, production and sales of display materials

JSR Electronic Materials Korea Co., Ltd.
Sales agency of products such as semiconductor materials

JSR Micro (Changshu) Co., Ltd.
Production of display materials

JSR Micro Taiwan Co., Ltd.
Design, development, production and sales of display materials

EUV Resist Manufacturing & Qualification Center N.V.
Production of EUV photoresists for semiconductor

JSR (Shanghai) Co., Ltd.
Sales agency of products such as synthetic rubbers, semiconductor materials, LCD materials and performance chemicals

JSR North America Holdings, Inc.
Management and oversight of JSR Micro, Inc. and JSR Life Sciences, LLC's global operations

Life Sciences Business

JSR Micro N.V.
Production and sales of semiconductor materials and life sciences related materials

MBL Beijing Biotech Co., Ltd.
Manufacture of in-vitro diagnostic raw material platforms and provider of complete project solutions for IVD industry

MBL International Corporation
Development, manufacturing and sales of solutions-based products for both life science research and clinical diagnostics

MBL Hangzhou Biotech Co., Ltd.
Manufacture of clinical diagnostics materials, antibodies and intermediates

KBI Biopharma, Inc.
Microbial and mammalian, clinical and commerical biopharmaceutical contract development and manufacturing services

Selexis SA
Cell-line development services

Crown Bioscience International
Efficacy testing services for candidates of drugs against oncology, inflammation, cardiovascular and metabolic disease and development of antibodies for those diseases

JSR North America Holdings, Inc.
Management and oversight of JSR Micro, Inc. and JSR Life Sciences, LLC's global operations

JSR Life Sciences, LLC
JSR Life Sciences global business headquarters and distribution of life sciences products in the US market

KBI Biopharma Boulder, LLC
Drug development and commercial manufacturing (microbial) services

KBI Biopharma BVBA
Wholly-owned KBI subsidiary, focused on delivering analytical and formulation services

Elastomers Business

Kumho Polychem Co., Ltd.
Production and sales of ethylene propylene rubber

ELASTOMIX (THAILAND) CO., LTD.
Compounding of crude rubber and sales of compounding products

PT.ELASTOMIX INDONESIA
Compounding of crude rubber and sales of compounding products

ELASTOMIX (FOSHAN) CO., LTD.
Compounding of crude rubber and sales of compounded products

ELASTOMIX MEXICO, S.A. de C.V.
Compounding of crude rubber and sales of compounding products

Tianjin Kuo Cheng Rubber Industry Co., Ltd.
Compounding of crude rubber and sales of compounding products

JSR BST Elastomer Co., Ltd.
Sales and manufacturing of Solution Polymerization Styrene-Butadiene Rubber.

JSR MOL Synthetic Rubber, Ltd.
Sales and manufacturing of solution polymerization styrene-butadiene rubber

JSR Elastomer Korea Co., Ltd.
Sales agency of products such as synthetic rubbers

JSR Elastomer Europe GmbH
Sales agency of products such as synthetic rubbers

JSR Elastomer India Private Limited
Sales agent for synthetic rubbers and other elastomer products

JSR Elastomer America, Inc.
Sales of synthetic rubber

JSR (Shanghai) Co., Ltd.
Sales agency of products such as synthetic rubbers, semiconductor materials, LCD materials and performance chemicals

Plastics Business

Techno-UMG Hong Kong Co., Ltd.
Sales and technical services of synthetic resin in Hong Kong and neighboring regions

Techno-UMG Asia Co., Ltd.
Sales and technical services of synthetic resin in ASEAN region

Techno-UMG Europe GmbH
Sales and technical services of synthetic resin in Europe

Techno-UMG Shanghai Co., Ltd.
Sales and technical services of synthetic resin in China

Techno-UMG Guangzhou Co., Ltd.
Sales and technical services of synthetic resin in Guangzhou and neighboring regions

Techno-UMG America, Inc
Sales of plastics, technical services related to plastics in North America

Other Businesses

JSR Trading Vietnam Co., Ltd.
Export, import and sales of synthetic rubber and steel container, materials and market development

JSR Trading (Shanghai) Co., Ltd.
Export and import, purchase and sales of the following: various chemicals, machinery, equipment, distribution materials

JSR Trading Bangkok Co., Ltd.
Export, purchase and sale of various chemicals and distribution materials. Purchase and wholesale of various equipment

JSRT Mexico S.A. de C.V.
Sales of synthetic rubber, steel box, materials and market development

Corporate Data (As of March 31, 2020)

JSR Corporation

JSR Corporation Established
December 10, 1957

Capital (Common Stock)
23,370 million yen

Employees
9,050

Closing date
JSR books are closed on March 31 each year.

Shareholders Information

Stock Listing
Tokyo Stock Exchange

Number of Shares Issued
226,126,145 shares

Number of Shareholders
15,999

Major Shareholders

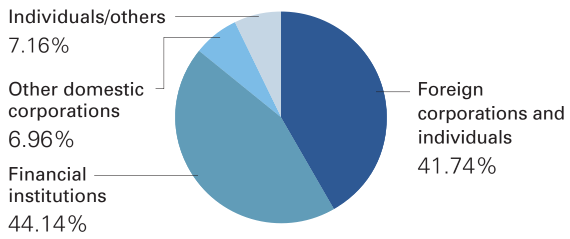
Name of Shareholder	% of shares held/voting rights	Number of shares held (thousands)
The Master Trust Bank of Japan, Ltd. (trust account)	8.81	18,921
STATE STREET BANK AND TRUST COMPANY 505010	7.30	15,680
Japan Trustee Services Bank, Ltd. (trust account)	6.26	13,442
Japan Trustee Services Bank, Ltd. (trust account 9)	3.50	7,522
Bridgestone Corporation	3.00	6,441
Japan Trustee Services Bank, Ltd. (trust account 5)	1.73	3,724
Nippon Life Insurance Company	1.73	3,717
Meiji Yasuda Life Insurance Company	1.69	3,631
Japan Trustee Services Bank, Ltd. (trust account 7)	1.59	3,419
BNYMSANV AS AGENT/CLIENTS LUX UCITS NON TREATY 1	1.56	3,355

* The Company holds 11,412,308 shares of treasury stock, which are not included in the table above.

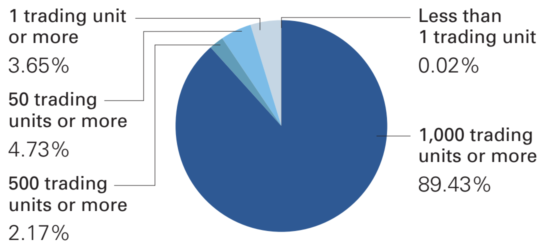
Composition of Shareholders

	Shareholder	Shares held (thousands)
Individuals and others	15,075	15,361
Foreign corporations and individuals	585	89,625
Other domestic corporations	223	14,947
Financial institutions	115	94,781
Treasury stock	1	11,412
Total	15,999	226,126

By Type of Shareholders



By Number of Shares Held



Ordinary General Meeting of Shareholders
The annual General Meeting of Shareholders is held in June each year. The 2020 annual General Meeting was held on June 17, 2020.

Transfer Agent and Register
SUMITOMO MITSUI TRUST BANK, LIMITED

Independent Auditors
KPMG AZSA LLC

Common Stock Price Range
(Yen/share: Tokyo Stock Exchange)

		1st Q	2nd Q	3rd Q	4th Q
FY2008	High	2,460	2,180	1,397	1,312
	Low	2,000	1,246	795	990
FY2009	High	1,687	1,960	1,959	1,974
	Low	1,162	1,561	1,545	1,714
FY2010	High	1,999	1,666	1,543	1,875
	Low	1,436	1,201	1,341	1,183
FY2011	High	1,724	1,655	1,582	1,790
	Low	1,413	1,221	1,218	1,408
FY2012	High	1,695	1,455	1,644	1,994
	Low	1,255	1,274	1,224	1,670
FY2013	High	2,360	2,073	2,049	2,085
	Low	1,748	1,713	1,663	1,694
FY2014	High	1,933	1,975	2,229	2,205
	Low	1,622	1,681	1,711	1,893
FY2015	High	2,296	2,227	2,054	1,903
	Low	1,998	1,626	1,688	1,455
FY2016	High	1,682	1,635	1,872	2,115
	Low	1,292	1,287	1,437	1,835
FY2017	High	2,082	2,177	2,320	2,758
	Low	1,794	1,871	2,035	2,215
FY2018	High	2,425	2,229	2,177	1,909
	Low	1,803	1,824	1,530	1,526
FY2019	High	1,914	1,836	2,165	2,196
	Low	1,475	1,621	1,699	1,452

JSR Corporation

FINANCIAL SECTION 2020

CONTENTS

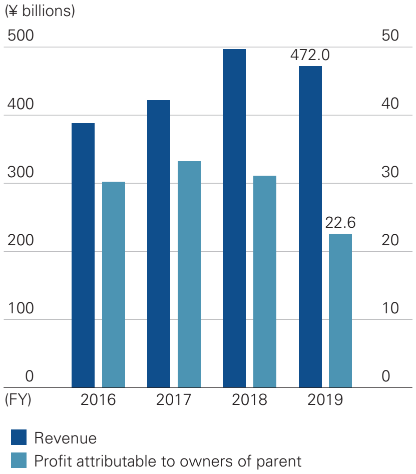
TEN-YEAR SUMMARY

Millions of yen

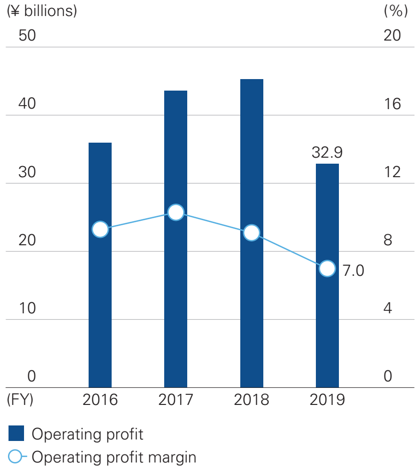
Fiscal Years ended March 31	2010	2011	2012	2013	2014	2015
Results for the year						
Net sales	¥ 340,666	¥ 349,947	¥ 371,487	¥ 394,309	¥ 404,073	¥ 386,709
Costs and expenses	(301,571)	(313,982)	(336,281)	(358,247)	(366,005)	(352,301)
Operating profit	39,095	35,964	35,206	36,062	38,068	34,408
Interest and dividends income	626	634	809	916	1,390	1,380
Interest expenses	(146)	(147)	(126)	(142)	(345)	(527)
Profit before income taxes	40,674	41,245	42,847	36,956	41,069	27,367
Profit attributable to owners of parent	27,571	26,407	30,278	25,173	29,919	24,069
Capital expenditures	11,801	19,728	27,608	21,499	35,157	24,276
Depreciation	19,245	17,784	19,145	18,096	17,407	18,508
Year-end financial position						
Total assets	390,591	430,693	482,935	501,320	534,592	516,360
Long-term loans payable	1,028	500	6,626	11,069	20,387	22,249
Total liabilities	126,475	148,335	167,202	164,060	169,918	154,006
Equity	262,679	280,955	308,641	331,284	358,303	353,145
Current ratio (times)	2.4	2.3	2.3	2.5	2.5	2.7
Return on assets (%)	7.1	6.4	6.6	5.1	5.8	4.6
Return on equity (%)	10.8	9.7	10.3	7.9	8.7	6.8
Equity ratio (%)	67.3	65.2	63.9	66.1	67.0	68.4
Per share of common stock (Yen and U.S. Dollars)						
Profit attributable to owners of parent	¥ 113.07	¥ 109.46	¥ 126.13	¥ 106.10	¥ 128.19	¥ 105.87
Cash dividends	32.00	32.00	34.00	38.00	40.00	50.00
Equity	1,088.87	1,164.63	1,299.77	1,409.06	1,557.08	1,565.45

(Notes) 1. Amounts in U.S. dollars are translated from yen, provided for convenience only, at the exchange rate of 1.00 U.S. dollar = 108.83 Japanese yen; the prevailing rate on March 31, 2020.
2. The Group has adopted International Financial Reporting Standards (IFRS) as from the fiscal year ending March 2018.

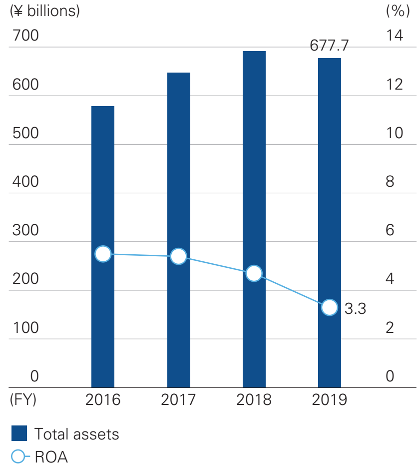
Revenue/Profit attributable to owners of parent



Operating Profit/ Operating Profit Margin

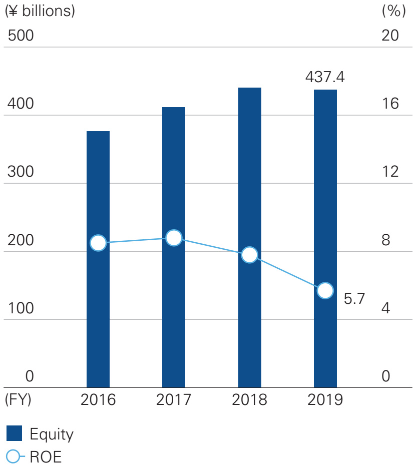


Total Assets/ROA

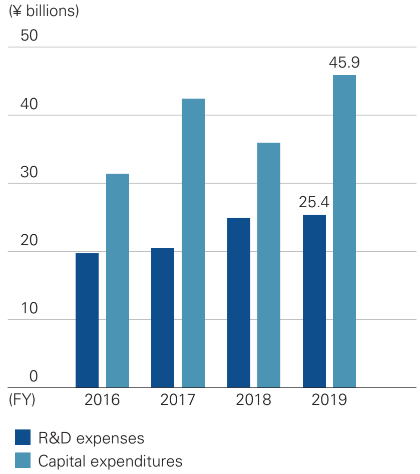


					Millions of yen	Thousands of U.S. dollars
2016		FY2016	FY2017	FY2018	FY2019	FY2019
	Results for the year					
¥ 390,599	Revenue	¥ 388,455	¥ 421,930	¥ 495,354	¥ 471,967	$ 4,336,734
(358,228)	Costs, other income and expenses	(352,512)	(378,360)	(450,093)	(439,082)	(4,034,571)
32,370	Operating profit	35,943	43,569	45,261	32,884	302,163
1,369	Finance income	3,045	3,659	2,499	1,929	17,723
(699)	Finance costs	(694)	(1,022)	(1,352)	(2,184)	(20,070)
38,327	Profit before tax	38,294	46,206	46,408	32,629	299,815
30,078	Profit attributable to owners of parent	30,243	33,230	31,116	22,604	207,699
31,785	Capital expenditures	31,377	42,408	35,981	45,880	432,575
14,676	Depreciation	14,793	16,973	21,790	26,343	241,161
	Year-end financial position					
576,016	Total assets	578,484	647,699	691,435	677,713	6,227,265
38,381	Borrowings (non-current liabilities)	38,381	53,456	50,777	52,684	484,093
199,302	Total liabilities	202,120	236,084	251,075	240,301	2,208,043
361,394	Total equity attributable to owners of parent	361,889	393,499	401,998	396,793	3,645,987
2.5	Current ratio (times)	2.5	2.3	1.97	2.05	2.05
5.5	Return on assets (%)	5.5	5.4	4.7	3.3	3.3
8.4	Return on equity (%)	8.5	8.8	7.8	5.7	5.7
62.7	Equity ratio (%)	62.6	60.8	58.1	58.5	58.5
	Per share of common stock (Yen and U.S. Dollars)					
¥ 134.43	Profit attributable to owners of parent	¥ 135.17	¥ 149.32	¥ 140.62	¥ 104.38	$ 0.96
50.00	Cash dividends	50.00	50.00	60.00	60.00	0.55
1,624.14	Equity attributable to owners of parent	1,626.36	1,767.81	1,823.69	1,848.01	16.98

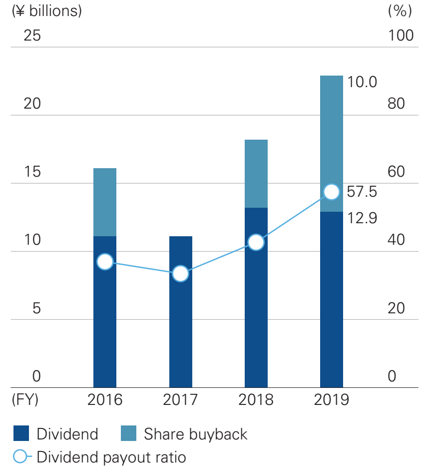
Equity/ROE



R&D Expenses/ Capital Expenditures



Shareholder Return/ Dividend Payout Ratio



MANAGEMENT'S DISCUSSION AND ANALYSIS

Analysis of Operating Results

Overview of FY ended March 2020 (April 1, 2019 to March 31, 2020)

In FY ended in March 2020 (April 1, 2019 to March 31, 2020), among the JSR Group's main customer industries, global automobile production fell from the previous fiscal year, mainly reflecting the growing economic slowdown among East Asian nations. Automobile production in China began to increase in December, recovering from a slump in the first half, but it declined by 12% in January and by 80% in February year-on-year due to the impact of the spread of COVID-19 infections. Automobile production in other regions has also been negatively impacted by the spread of COVID-19 infections. Consequently, automobile tire production was also down year-on-year. In the semiconductor market, memory devices remained sluggish due to the lingering impact of price levels that had tumbled in the second half of the previous fiscal year, whereas logic devices have been on a recovery path since the first half. As overall display market demand, particularly for wide-screen TV LCD panels, has waned, operational adjustments, including abandonment of production by some customers, were implemented from the 3rd quarter onward. As for the exchange rate, the yen appreciated slightly against the dollar year-on-year.

Amid these circumstances, the Digital Solutions Business, specifically the Semiconductor Materials Business, recorded higher revenue over the previous fiscal year on the back of strong sales, especially in state-of-the-art photoresists and expanded sales of advanced cleans solutions and packaging materials. Display Materials Business revenue fell because of operational adjustments brought on by worsening demand and a drop in sales prices. Consequently, the Digital Solutions Business, as a whole, posted a gain in revenue against a decline in operating profit.

The JSR Group's Elastomers Business saw lower revenue compared to the previous fiscal year, due to a decline in sales volume because of slackening demand, especially for automobile tires, and falling sales prices caused by deteriorating raw-material market conditions. The segment posted an operating loss, as a result of the revenue decline, worsening price spreads between product prices and raw material prices, and an impairment loss on some fixed assets made in the 4th quarter.

The Plastics Business recorded lower revenue and lower operating profit compared to the previous fiscal year, due to a narrowing price spread caused by slumping raw-material market conditions, in addition to declines in sales volume, primarily in the automobile markets both in Japan and abroad.

As a result, the Group reported revenue of 471,967 million yen (down 4.7% year-on-year), operating profit of 32,884 million yen (down 27.3% year-on-year), and profit attributable to owners of parent of 22,604 million yen (down 27.4% year-on-year).

With the transfer of JM Energy Corporation shares on April 1, 2020, the lithium-ion capacitor business has been classified as a discontinued operation. Consequently, revenue, operating profit or loss, and other line items are accounted for as sums of continuing operations and the previous consolidated accounting period are similarly reclassified for the purpose of comparison.

Business Segment Overview

Digital Solutions Business Segment

As already stated, in the Semiconductor Materials Business, memory devices continued at a sluggish pace reflecting lingering effects of tumbling prices in the second half of the previous fiscal year, whereas logic devices have been on a recovery path since the first half. In addition to strong sales, particularly for state-of-the-art photoresists, expanded sales of new products such as EUV resists and advanced cleans together with sales expansion of packaging materials in the Chinese market pushed revenue higher compared to the previous fiscal year. The Semiconductor Materials Business was not affected by COVID-19. In the Display Materials Business, sales volumes of alignment films and insulating films for wide-screen TV LCD panels for the Chinese market expanded, however, the business posted lower revenue due to the impact of operational adjustments, including abandonment of production by some customers, amid the shifting structural changes of LC display production from Korea and Taiwan to China. The Edge Computing Business expanded sales of its NIR Cut Filter. The Semiconductor Materials Business secured a higher operating profit despite rising temporary expenses accompanying expanded advanced cleans and loss on disposal of finished goods and raw materials and the Edge Computing Business performed steadily whereas the Display Materials Business, which reported lower revenue, also reported a lower operating profit.

Consequently, the Digital Solutions Business segment posted an operating profit of 30,917 million yen (down 5.3% year-on-year) on revenue of 144,805 million yen (up 1.8% year-on-year).

Operating Profit (¥ millions)

Fiscal Years ended March 31	FY2018	FY2019
Digital Solutions Business	¥ 142,216	¥ 144,805
Operating Profit	32,663	30,917
Life Sciences Business	43,872	50,496
Operating Profit	781	3,594
Elastomers Business	200,736	178,794
Operating Profit	7,421	(1,758)
Plastics Business	105,446	95,092
Operating Profit	9,214	6,237
Other Businesses & Adjustment	3,084	2,779
Operating Profit	(4,818)	(6,104)
Revenue	¥ 495,354	¥ 471,967
Operating Profit	45,261	32,884

Life Sciences Business Segment

The Life Sciences Business segment saw stable revenue growth on the back of favorable progress by the CDMO business, led by the Group companies KBI and Selexis, and in the CRO business led by Crown Bio, which became a wholly-owned subsidiary in May 2018. Sales of diagnostic reagent materials, bioprocess materials, and other products also climbed. Medical & Biological Laboratories Co., Ltd.'s diagnostic reagent business grew steadily, contributing to overall higher revenue from the previous fiscal year. The segment saw a substantial jump in operating profit thanks to expanded revenue as well as realizing benefits from business restructuring undertaken in the previous fiscal year.

As a result, the Life Sciences Business segment posted an operating profit of 3,594 million yen (up 360.4% year-on-year) on revenue of 50,496 million yen (up 15.1% year-on-year).

Elastomers Business Segment

Global production of automobile tires, one of the segment's main customer industries, remained weak throughout the year, due to a decline in automobile production, particularly in China, compounded by temporary production stoppages or reductions at tire-maker plants in Europe and other areas. The spread of COVID-19 infections also had a negative impact on the market as a whole.

Amid these circumstances, the sales volume of solution styrene-butadiene rubber (SSBR), positioned by JSR as a strategic product, improved over the previous fiscal year, despite a year-on-year decline in worldwide tire production. Nevertheless, the segment recorded lower revenue compared to the previous fiscal year, as the segment's overall sales volume was sluggish and sales prices slid because of a deterioration in raw-material market conditions. The segment posted an operating loss for the full term as a result of revenue decline, narrower price spreads, and the impairment loss on some fixed assets made in the 4th quarter.

Consequently, the Elastomers Business segment posted an operating loss of 1,758 million yen, on revenue of 178,794 million yen (down 10.9% year-on-year).

Plastics Business Segment

In addition to sluggish performance in the automobile industry, especially outside of Japan, the segment's sales volume was negatively effected by the impact of COVID-19 in the 4th quarter and sales prices fell due to a deterioration in raw material market conditions. These factors caused revenue to decrease from the previous fiscal year, and the decline in revenue together with the decline in price spread led to a lower operating profit.

As a result, the Plastics Business segment posted an operating profit of 6,237 million yen (down 32.3% year-on-year) on revenue of 95,092 million yen (down 9.8% year-on-year).

Business Outlook

With the impact of COVID-19 on global economic and corporate activities, predicting the course of the pandemic or its resolution is extremely difficult. In these circumstances, based on available data, we assume the effects of the pandemic will continue for a certain period of time in the coming consolidated fiscal year, and made the following assumptions for revenues in each business segment in the FY ending March 2021.

The table below shows the rate and amount of change in the Group's revenue for the FY ending March 2021, not including the impact of COVID-19. Cost control measures against the risk of reduced sales have been incorporated into the business plan. As a result, we forecast overall revenue of 423 billion yen (a 10.4% year-on-year decrease), operating profit of 23 billion yen (down 30.1%), and profit attributable to owners of parent of 15 billion yen (down 33.6%).

* Fiscal 2020 forecasts are as of April 2020. Please refer to the JSR website (https://www.jsr.co.jp/jsr_e/ir/library/presentation.html) for the latest forecasts.

Rate and amount of change to revenue forecasts attributable to COVID-19 in FY ending March 2021

		1H	2H
Digital Solutions Business	Semiconductor Materials	-5%	-5%
	Display Materials	-10%	-10%
Life Sciences Business		0%	0%
Elastomers Business		-20%	-10%
Plastics Business		-20%	-10%
Total		-50.0 billion yen	

Analysis of Financial Position

Overview

Total assets at the end of the current consolidated fiscal year amounted to 677,713 million yen, a 13,722 million yen decrease from the previous fiscal year.

Current assets were 303,475 million yen, down 35,508 million yen, owing to a decrease in trade and other receivables and cash and cash equivalents.

Non-current assets increased by 21,787 million yen to 374,238 million yen, due to an increase in property, plant and equipment arising from the application of IFRS 16 standards for leases, which offset a decrease in other financial assets reflecting the sale of securities.

Although other financial liabilities increased due to the application of IFRS 16 standards for leases, total liabilities amounted to 240,301 million yen, down 10,774 million yen, owing to a decrease in trade and other payables.

In terms of equity, although retained earnings were up, total equity attributable to owners of parent was down 5,206 million yen to 396,793 million yen, due to the acquisition of treasury shares and a decrease in other components of equity. Total equity, including non-controlling interests, amounted to 437,412 million yen, a decrease of 2,948 million yen.

Analysis of Cash Flows

Cash and cash equivalents ("funds") as of March 31, 2020 stood at 61,931 million yen, down 8,854 million yen from a year earlier.

Net cash provided by operating activities amounted to 54,228 million yen, up 23,288 million yen from the previous fiscal year. The main factors included profit before tax of 32,629 million, depreciation expenses and depreciation charges of 26,359 million yen, and income taxes paid of 12,773 million yen.

Net cash used in investing activities totaled 35,592 million yen, down 30,674 million yen from the previous fiscal year. The main items were 43,951 million yen in payments for purchase of property, plant and equipment associated with plant expansion and 15,449 million yen in proceeds from sale of investments.

Net cash used in financing activities totaled 25,264 million yen, up 6,298 million yen from the previous fiscal year. The main items were 13,052 million yen in dividends paid and 10,002 million yen in payments for purchase of treasury shares.

Basic Policy on Profit Allocation and Dividends for the Fiscal Year ended March 31, 2020 and the Fiscal Year ending March 31, 2021

The Company believes it is of the utmost importance to pursue sustainable, long-term business growth by strengthening its competitiveness through the reinforcement of research and development activities and new businesses expansion.

The Company determines shareholder returns in consideration of business performance and mid- to long-term capital requirements, while taking into account the balance between returning profits to shareholders and retaining earnings necessary for future growth. During the JSR20i9 mid-term business plan, the Company sought an overall return ratio of more than 50%, through a combination of dividends and timely share buybacks. We will continue to determine shareholder returns based on this target of 50% or higher.

Moreover, the Company's policy is to pay an interim and year-end dividend.

The decision-making bodies that determine dividend payments are the General Meeting of Shareholders for year-end dividends and the Board of Directors for interim dividends.

Based on the above policy, the interim dividend for the fiscal year under consideration was set at 30 yen per share. As previously announced, the year-end dividend was also set at 30 yen per share, yielding a combined annual dividend of 60 yen per share.

Moreover, the Articles of Incorporation stipulate that the Company may distribute dividends pursuant to Paragraph 5, Article 454 of the Companies Act; a resolution to distribute an interim dividend for the FY ended March 2020 was made by the Board of Directors on October 28, 2019.

Risk Information

JSR Group is exposed to the following risks that may impact on operating results, financial position, cash flows, and other aspects of its business performance.

Forward-looking statements are based on the Group's judgments as of March 31, 2020, and the Group's business and other risks are not limited to the following matters.

(1) Changes in Demand due to Economic Trends

Major industries in which JSR Group's products are sold, such as automobiles and electronics, may be influenced by the economic climate in countries or regions. An economic slowdown could reduce demand in these industries and adversely affect JSR Group's operating results.

(2) Fluctuation in Prices for Crude Oil, Naphtha and Other Major Raw Materials

Fluctuations in prices for crude oil and naphtha, or changes in market conditions for other major raw materials, could change procurement prices of raw materials or market conditions for products and adversely affect JSR Group's operating results, especially in the Elastomers Business and Plastics Business.

(3) Development of New Products

Large, unforeseen changes in the industry or market could prevent the timely development of new products and adversely affect JSR Group's operating results.

(4) R&D Involving Next-Stage Growth Businesses
JSR Group actively invests in R&D to create next-stage growth businesses. However, there is no guarantee that all R&D activities will yield worthwhile results. Depending on R&D results, there could be an adverse effect on JSR Group's operating results.

(5) Protection of Intellectual Property
Disputes over intellectual property with other companies could arise or infringements on JSR's intellectual property by other companies could occur.

(6) Product Quality Assurance and Product Liability
Damage or injury caused by a product manufactured by JSR Group could adversely affect JSR Group's operating results.

(7) Procurement of Raw Materials
An interruption in the supply of raw materials due to an accident at a raw materials manufacturer or a supply stoppage due to quality issues or bankruptcy could hinder production activities and adversely affect JSR Group's operating results.

(8) Natural Disasters and Accidents
Constraints on economic activity caused by prolonged COVID-19 infections or a major natural disaster or accident at a manufacturing facility that damages the manufacturing facility or disrupts production could adversely affect JSR Group's operating results.

(9) Environmental Issues
In the event that a spill of any type of chemical occurs or that environmental regulations become more stringent, the Group's business activities could be constrained, the Group may have to pay compensation and other costs, or the Group may have to make new substantial capital expenditures. Any of these events could adversely affect JSR Group's operating results.

(10) Laws and Regulations
In the countries where it operates, JSR Group is subject to various laws and regulations involving business and investment permits, import and export activities, trade, labor relations, intellectual property, taxes, foreign exchange, and other matters. In the event that a law or regulation is violated, or a law or regulation becomes stricter or is significantly altered, there could be limitations to the Group's business activities or additional compliance costs. Any of these events could adversely affect JSR Group's operating results.

(11) Fluctuation in Exchange Rates
JSR Group is susceptible to the effects of exchange rate fluctuations. Operating results of consolidated subsidiaries and equity-method affiliates located in other countries are converted into Japanese yen amounts for the purposes of preparing consolidated financial statements. Accordingly, yen appreciation could adversely affect JSR Group's operating results.

(12) Overseas Operations
Overseas operations are exposed to a number of risks that include, but are not limited to, an unfavorable political environment or economic trends; labor disputes and other problems due to differences in labor laws and other working conditions; difficulty in recruiting and retaining employees; an adverse impact on business activities due to inadequate social infrastructure; and the impact of wars, terrorism, and other social instability. Any of these events could adversely affect JSR Group's operating results.

(13) Litigation
JSR Group may be sued or be involved in other litigation concerning a dispute with a supplier, customer, or other external party. The outcome of significant litigation could adversely affect JSR Group's operating results.

CONSOLIDATED FINANCIAL STATEMENTS

Financial Section

1. Preparation Policy of the Consolidated Financial Statements

The consolidated financial statements of the Company are prepared in accordance with International Financial Reporting Standards (hereinafter "IFRS") pursuant to the provisions of Article 93 of the Regulation on Terminology, Forms and Preparation Methods of Consolidated Financial Statements (Ministry of Finance Order No. 28 of 1976; hereinafter the "Regulation on Consolidated Financial Statements").

2. Audit Certification

In accordance with the provisions of Article 193-2, paragraph 1 of the Financial Instruments and Exchange Act of Japan, the consolidated financial statements for the fiscal year ended March 31, 2020 were audited by KPMG AZSA LLC.

3. Special Efforts to Ensure the Appropriateness of Consolidated Financial Statements, etc., and Development of a System for Fair Preparation of Consolidated Financial Statements, etc. in Accordance with IFRS

(1) The Company has implemented special efforts to ensure the appropriateness of consolidated financial statements, etc. Specifically, the Company has become a member of the Financial Accounting Standards Foundation and obtains information including the latest accounting standards in order to develop a system that enables it to properly understand the contents of accounting standards, etc. or respond appropriately to changes in accounting standards, etc. In addition, the Company's staff members have attended seminars, lectures and other events held by the Accounting Standards Board of Japan.

(2) For the adoption of IFRS, the Company keeps up with the latest accounting standards by obtaining press releases and standards published by the International Accounting Standards Board as needed. To prepare appropriate consolidated financial statements under IFRS, the Company has developed accounting policies, etc. of the Group in accordance with IFRS and performs accounting procedures based on these policies.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

	Note	Millions of yen		Thousands of U.S. dollars
		As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Assets				
Current assets				
Cash and cash equivalents	9	¥ 70,785	¥ 61,931	$ 569,064
Trade and other receivables	10, 34	135,280	110,506	1,015,404
Inventories	12	117,046	112,840	1,036,850
Other financial assets	11, 34	5,002	4,064	37,347
Other current assets	14	10,870	11,487	105,547
Subtotal		338,983	300,829	2,764,212
Assets associated with disposal group classified as held for sale	13	—	2,646	24,310
Total current assets		338,983	303,475	2,788,523
Non-current assets				
Property, plant and equipment	15, 16, 18	183,457	215,664	1,981,661
Goodwill	17, 18	59,066	58,283	535,540
Other intangible assets	17	14,205	15,891	146,015
Investments accounted for using equity method	19	24,269	25,385	233,251
Retirement benefit asset	23	1,503	2,560	23,519
Other financial assets	11, 34	58,895	44,656	410,330
Other non-current assets	14	2,305	2,469	22,687
Deferred tax assets	20	8,751	9,331	85,739
Total non-current assets		352,452	374,238	3,438,742
Total assets		691,435	677,713	6,227,265
Liabilities and equity				
Liabilities				
Current liabilities				
Trade and other payables	22, 34	118,053	92,839	853,067
Borrowings	21, 34	33,519	30,043	276,050
Income taxes payable		5,598	1,757	16,141
Other financial liabilities	21, 34	532	3,138	28,837
Other current liabilities	24	14,752	17,976	165,172
Subtotal		172,455	145,752	1,339,266
Liabilities associated with disposal group classified as held for sale	13	—	2,646	24,310
Total current liabilities		172,455	148,398	1,363,577
Non-current liabilities				
Borrowings	21, 34	50,777	52,684	484,093
Retirement benefit liability	23	15,870	16,216	148,999
Other financial liabilities	21, 34	1,675	16,198	148,838
Other non-current liabilities	24	2,733	3,667	33,695
Deferred tax liabilities	20	7,565	3,139	28,842
Total non-current liabilities		78,620	91,903	844,466
Total liabilities		251,075	240,301	2,208,043
Equity				
Equity attributable to owners of parent				
Share capital	25	23,370	23,370	214,742
Capital surplus	25	18,436	18,242	167,615
Retained earnings	25	351,476	369,102	3,391,550
Treasury shares	25	(10,042)	(19,547)	(179,614)
Other components of equity	25	18,758	5,626	51,694
Total equity attributable to owners of parent		401,998	396,793	3,645,987
Non-controlling interests		38,361	40,619	373,235
Total equity		440,360	437,412	4,019,222
Total liabilities and equity		¥691,435	¥677,713	$6,227,265

See accompanying notes.

CONSOLIDATED STATEMENT OF PROFIT OR LOSS

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

	Note	Millions of yen		Thousands of U.S. dollars
		Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Continuing operations				
Revenue	7, 27	¥ 495,354	¥ 471,967	$ 4,336,734
Cost of sales		(347,928)	(331,228)	(3,043,537)
Gross profit		147,426	140,739	1,293,197
Selling, general and administrative expenses	28	(102,105)	(104,343)	(958,773)
Other operating income	29	1,713	1,304	11,982
Other operating expenses	18, 29	(2,306)	(4,879)	(44,830)
Share of profit of investments accounted for using equity method		533	64	586
Operating profit	7	45,261	32,884	302,163
Finance income	7, 30	2,499	1,929	17,723
Finance costs	7, 30	(1,352)	(2,184)	(20,070)
Profit before tax	7	46,408	32,629	299,815
Income tax expenses	20	(10,985)	(6,859)	(63,023)
Profit from continuing operations		35,423	25,770	236,792
Discontinued operations				
Profit (loss) from discontinued operations	13	(1,837)	252	2,314
Profit for the period		¥ 33,586	¥ 26,022	$ 239,106
Profit attributable to:				
Owners of parent		31,116	22,604	207,699
Non-controlling interests		2,470	3,418	31,407
Total		¥ 33,586	¥ 26,022	$ 239,106

	Note	Yen		U.S. dollars
		Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Earnings per share				
Basic earnings per share		¥140.62	¥104.38	$0.96
Continuing operations	32	148.92	103.22	0.95
Discontinued operations	32	(8.30)	1.16	0.01
Diluted earnings per share		140.27	104.19	0.96
Continuing operations	32	148.55	103.03	0.95
Discontinued operations	32	(8.28)	1.16	0.01

See accompanying notes.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

	Note	Millions of yen		Thousands of U.S. dollars
		Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Profit		¥33,586	¥26,022	$239,106
Other comprehensive income				
Items that will not be reclassified to profit or loss				
Net change in financial assets measured at fair value through other comprehensive income	31	(4,678)	(1,377)	(12,650)
Remeasurements of defined benefit plans	31	54	661	6,071
Share of other comprehensive income of investments accounted for using equity method	31	5	(31)	(286)
Items that may be reclassified to profit or loss				
Net change in fair value of cash flow hedges	31	(79)	(124)	(1,143)
Exchange differences on translation of foreign operations	31	476	(4,111)	(37,771)
Share of other comprehensive income of investments accounted for using equity method	31	(1,213)	(904)	(8,306)
Total other comprehensive income, net of tax		(5,435)	(5,886)	(54,084)
Total comprehensive income		28,151	20,136	185,022
Comprehensive income attributable to:				
Owners of parent		25,611	17,486	160,673
Non-controlling interests		2,540	2,650	24,349
Total		¥28,151	¥20,136	$185,022

See accompanying notes.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

Fiscal year ended March 31, 2019

		Millions of yen							
		Equity attributable to owners of parent							
	Note	Share capital	Capital surplus	Retained earnings	Treasury shares	Other components of equity	Total	Non-controlling interests	Total equity
Balance at April 1, 2018		¥23,370	¥18,502	¥331,913	¥ (5,358)	¥25,071	¥393,499	¥18,116	¥411,615
Profit				31,116			31,116	2,470	33,586
Other comprehensive income						(5,505)	(5,505)	70	(5,435)
Total comprehensive income		—	—	31,116	—	(5,505)	25,611	2,540	28,151
Share-based remuneration transactions			(202)		88	(1)	(115)		(115)
Dividends	26			(12,175)			(12,175)	(623)	(12,798)
Changes in treasury shares			(10)		(4,772)		(4,782)		(4,782)
Transfer from other components of equity to retained earnings				689		(689)	—		—
Changes by business combination	8		146			(119)	27	17,610	17,637
Other movements				(67)		1	(67)	718	651
Total transactions with owners, etc.		—	(66)	(11,554)	(4,684)	(808)	(17,111)	17,705	594
Balance at March 31, 2019		¥23,370	¥18,436	¥351,476	¥(10,042)	¥18,758	¥401,998	¥38,361	¥440,360

Fiscal year ended March 31, 2020

		Millions of yen							
		Equity attributable to owners of parent							
	Note	Share capital	Capital surplus	Retained earnings	Treasury shares	Other components of equity	Total	Non-controlling interests	Total equity
Balance at April 1, 2019		¥23,370	¥18,436	¥351,476	¥(10,042)	¥18,758	¥401,998	¥38,361	¥440,360
Effect of changes in accounting policies				133			133		133
Restated balance at April 1, 2019		23,370	18,436	351,609	(10,042)	18,758	402,131	38,361	440,493
Profit				22,604			22,604	3,418	26,022
Other comprehensive income						(5,118)	(5,118)	(768)	(5,886)
Total comprehensive income		—	—	22,604	—	(5,118)	17,486	2,650	20,136
Share-based remuneration transactions			(174)		292	(47)	71		71
Dividends	26			(13,054)			(13,054)	(1,453)	(14,507)
Changes in treasury shares			(31)		(9,798)		(9,829)		(9,829)
Transfer from other components of equity to retained earnings				7,968		(7,968)	—		—
Changes by sale of shares of subsidiaries							—	(361)	(361)
Changes in equity due to capital increase of subsidiary							—	1,422	1,422
Other movements			10	(24)			(13)		(13)
Total transactions with owners, etc.		—	(194)	(5,110)	(9,506)	(8,014)	(22,825)	(392)	(23,217)
Balance at March 31, 2020		¥23,370	¥18,242	¥369,102	¥(19,547)	¥ 5,626	¥396,793	¥40,619	¥437,412

Fiscal year ended March 31, 2020

		Thousands of U.S. dollars							
		Equity attributable to owners of parent							
	Note	Share capital	Capital surplus	Retained earnings	Treasury shares	Other components of equity	Total	Non-controlling interests	Total equity
Balance at April 1, 2019		$214,742	$169,400	$3,229,584	$ (92,268)	$172,362	$3,693,820	$352,490	$4,046,310
Effect of changes in accounting policies				1,221			1,221		1,221
Restated balance at April 1, 2019		214,742	169,400	3,230,806	(92,268)	172,362	3,695,041	352,490	4,047,531
Profit				207,699			207,699	31,407	239,106
Other comprehensive income						(47,026)	(47,026)	(7,058)	(54,084)
Total comprehensive income		—	—	207,699	—	(47,026)	160,673	24,349	185,022
Share-based remuneration transactions			(1,598)		2,684	(429)	657		657
Dividends	26			(119,948)			(119,950)	(13,355)	(133,303)
Changes in treasury shares			(283)		(90,029)		(90,312)	(1)	(90,313)
Transfer from other components of equity to retained earnings				73,213		(73,213)	—		—
Changes by sale of shares of subsidiaries								(3,314)	(3,314)
Changes in equity due to capital increase of subsidiary								13,066	13,066
Other movements			95	(218)			(124)		(124)
Total transactions with owners, etc.		—	(1,786)	(46,954)	(87,345)	(73,642)	(209,727)	(3,604)	(213,331)
Balance at March 31, 2020		$214,742	$167,615	$3,391,550	$(179,614)	$ 51,694	$3,645,987	$373,235	$4,019,222

See accompanying notes.

CONSOLIDATED STATEMENT OF CASH FLOWS

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

	Note	Millions of yen		Thousands of U.S. dollars
		Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Cash flows from operating activities				
Profit before tax		¥ 46,408	¥ 32,629	$ 299,815
Loss before tax from discontinued operations	13	(2,232)	(3,208)	(29,477)
Depreciation and amortization		21,842	26,359	242,199
Interest and dividend income		(1,631)	(1,369)	(12,579)
Interest expenses		1,352	1,825	16,769
Share of loss (profit) of investments accounted for using equity method		(533)	(64)	(586)
Impairment loss	18	438	1,801	16,545
Decrease (increase) in trade and other receivables		1,553	23,317	214,254
Decrease (increase) in inventories		(22,039)	1,446	13,285
Increase (decrease) in trade and other payables		(5,834)	(27,721)	(254,716)
Other		3,026	11,912	109,459
Dividends received		1,785	1,591	14,615
Interest received		224	216	1,986
Interest paid		(1,236)	(1,732)	(15,919)
Income taxes paid		(12,183)	(12,773)	(117,367)
Net cash provided by (used in) operating activities		30,940	54,228	498,284
Cash flows from investing activities				
Net decrease (increase) in time deposits		(1,108)	1,036	9,517
Net decrease (increase) in marketable securities		10,000	—	—
Purchase of property, plant and equipment		(36,210)	(43,951)	(403,850)
Proceeds from sale of property, plant and equipment		273	913	8,391
Purchase of investments		(4,449)	(4,426)	(40,671)
Proceeds from sale of investments		1,656	15,449	141,957
Purchase of shares of subsidiaries resulting in change in scope of consolidation	8	(36,225)	—	—
Payments for sale of shares of subsidiaries resulting in change in scope of consolidation		—	(749)	(6,885)
Proceeds from company split	8	3,213	—	—
Purchase of shares in associates		(163)	(1,928)	(17,713)
Payments for loans receivable		(2,814)	(1,441)	(13,238)
Collection of loans receivable		290	309	2,836
Other		(731)	(804)	(7,385)
Net cash provided by (used in) investing activities		(66,266)	(35,592)	(327,042)
Cash flows from financing activities				
Net increase (decrease) in short-term borrowings	21	(1,938)	2,547	23,405
Repayments of long-term borrowings	21	(7,975)	(7,839)	(72,028)
Proceeds from long-term borrowings	21	9,231	5,846	53,714
Payments for purchase of treasury shares		(5,001)	(10,002)	(91,908)
Dividends paid	26	(12,175)	(13,052)	(119,928)
Dividends paid to non-controlling interests		(623)	(1,453)	(13,354)
Capital contribution from non-controlling interests		—	1,422	13,066
Repayments of lease liabilities		(551)	(3,025)	(27,791)
Other	21	66	292	2,681
Net cash provided by (used in) financing activities		(18,966)	(25,264)	(232,143)
Effect of exchange rate changes on cash and cash equivalents		121	(1,049)	(9,642)
Net increase (decrease) in cash and cash equivalents		(54,171)	(7,677)	(70,542)
Cash and cash equivalents at beginning of period		124,956	70,785	650,417
Cash and cash equivalents included in assets associated with disposal groups classified as held for sale		—	(1,176)	(10,810)
Cash and cash equivalents at end of period	9	¥ 70,785	¥ 61,931	$ 569,064

See accompanying notes.

NOTES ON CONSOLIDATED FINANCIAL STATEMENTS

JSR Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2020

(1) Reporting Entity

JSR Corporation (the "Company") is incorporated in Japan. The consolidated financial statements comprise the financial statements of the Company and its subsidiaries (collectively, the "Group") together with the Group's attributable share of the results of associates and joint ventures. The Group is primarily engaged in the Elastomers Business, the Plastics Business, the Digital Solutions Business and the Life Sciences Business as well as businesses related to these. The products of these businesses are wide ranging. See the note "(7) Segment Information" for further details.

(2) Basis of Preparation

1) Compliance with Accounting Standards
The Group meets the requirements of a "specified company" set forth in Article 1-2 of the "Ordinance on Consolidated Financial Statements." Accordingly, the Group prepares consolidated financial statements in accordance with IFRS pursuant to the provisions of Article 93 of the said Ordinance.

2) Basis for Measurement
The Group's consolidated financial statements, with the exception of assets pertaining to post-employment benefit plans, financial instruments measured at fair value, etc., stated on "(4) Significant Accounting Policies," are prepared on a historical cost model.

3) Presentation Currency and Units
The Group's consolidated financial statements are presented in Japanese yen, the currency of the primary economic environment in which the Company performs business activities (the "functional currency"), with amounts rounded to the nearest million yen.

The translation of the amounts in Japanese yen into US dollar is included solely for the convenience of readers outside Japan, using the prevailing exchange rate on March 31, 2020, which was ¥108.83 to $1.00. The amounts translated should not be construed as representations that the amounts in Japanese yen have been, could have been, or could in the future be, converted into US dollar at this or any other rates of exchange.

4) Authorization of Consolidated Financial Statements
The consolidated financial statements have been authorized by Nobuo Kawahashi, the Company's representative director and president and COO, and Hideki Miyazaki, the Company's CFO, on June 30, 2020.

(3) Explanation of New Standards and Interpretations Not Applied

The major new or revised standards and interpretations published prior to the date of authorization of the consolidated financial statements have no significant impact.

(4) Significant Accounting Policies

The significant accounting policies that have been applied to the consolidated financial statements are as follows and are identical to those applied to all periods stated in the consolidated financial statements.

1) Basis of Consolidation

(i) Subsidiaries
Subsidiaries refer to all entities controlled by the Group. The Group is deemed to have control over an entity if it has exposure or rights to variable returns from its involvement in the entity and has the ability to use its power over an entity to affect such returns. The financial statements of subsidiaries are included in the Group's consolidated financial statements from the date the Company gains control until the date it loses control of the subsidiary.

In cases where the accounting policies applied by a subsidiary are different from those applied by the Group, adjustments are made to the subsidiary's financial statements, if necessary.
All intergroup balances of payables and receivables, internal transactions and unrealized gains or losses arising from transactions within the Group are eliminated in preparing the consolidated financial statements.

When the Company retains control when there has been partial disposal of ownership interest in a subsidiary, the partial disposal is accounted for as an equity transaction. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognized directly in equity attributable to Owners of the parent company.

If the Company loses control over the subsidiary, gains or losses derived from such loss are recognized as profit or loss.

When the fiscal year-end of a subsidiary is different from the end of the reporting period of the Group, the Company uses financial statements of the subsidiary based on the provisional accounting as of the end of the reporting period of the Group.

(ii) Associates
Associates are entities over which the Group has significant influence but does not have control over the financial and operating policies. The equity method is applied to all associates from the date on which the Group acquires significant influence to the date on which it loses the significant influence.

Goodwill recognized on acquisition (less accumulated impairment losses) is included in investments in associates.

In cases where the accounting policies applied by an associate are different from those applied by the Group, adjustments are made to the associate's financial statements, if necessary.

(iii) Joint Ventures
A joint venture is an entity jointly controlled by two or more parties including the Group under the contractually agreed sharing of control over economic activities of the joint venture, which exists only when decisions for strategic financial and operating decisions related to relevant activities require unanimous consent of the parties sharing control.

Joint ventures of the Group are accounted for using the equity method.

In cases where the accounting policies applied by a joint venture are different from those applied by the Group, adjustments are made to the joint venture's financial statements, if necessary.

2) Business Combinations

The Group takes in account business combinations using the acquisition method.

The aggregate of the consideration paid for a business combination measured at fair value on the acquisition date and the amount of non-controlling interests in the acquired entity are taken as the acquisition costs based on the acquisition method.

Non-controlling interests are measured at equivalent amount for the fair price of the acquired entity's identifiable net assets and liabilities in proportion to the share of the non-controlling interest.

Ancillary costs incurred relating to business combination such as brokerage fees, attorney's fees, due diligence costs, other professional fees, consulting fees, as well as other acquisition-related costs are recognized as expenses in the periods in which such costs are incurred.

If the initial accounting for the business combination has not been completed by the closing date of the reporting period in which the business combination took place, such incomplete items are measured at provisional amounts based on the best estimate.

If the new information obtained during the measurement period, which lasts for a year from the acquisition date, affects the measurement of the amount recognized on the acquisition date, the provisional amount recognized on the acquisition date is retrospectively revised.

In the event that the aggregate amount of fair value of the consideration paid in relation to the business combination, the amount of non-controlling interests in the acquired entity, and the fair value of equity interests on the control commencement date in the acquired entity previously held by the acquiring entity exceeds the net value of identifiable assets and liabilities at the acquisition date, the excess amount is recognized as goodwill.

If, on the other hand, such aggregate amount does not exceed the net value of identifiable assets and liabilities at the acquisition date, the difference is recognized in profit or loss. Additional acquisitions of non-controlling interests after the controlling acquisition are accounted for as capital transactions and are not recognized as goodwill from the original transaction.

3) Foreign Currency Translation

(i) Functional Currency and Presentation Currency
The Group's consolidated financial statements are presented in Japanese yen, which is the Company's functional currency. The Group's foreign operations generally use the local currency as their functional currency, but if any currency other than the local currency is primarily used in the economic environment in which the entity operates, such currency is used as the entity's functional currency.

(ii) Foreign Currency Transactions
Foreign currency transactions, meaning transactions conducted in a currency other than the respective entity's functional currency, are translated into the functional currency either by using the exchange rates prevailing at the date of the transaction or using an average rate when there are no material fluctuations in exchange rates. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rates prevailing at the reporting date, and exchange differences are recognized in profit or loss in principle.

(iii) Foreign Operations
The assets and liabilities (including goodwill arising from acquisitions and adjustments of fair value) of foreign operations that use a currency other than Japanese yen as their functional currency are translated into Japanese yen at the exchange rates prevailing at the reporting date. The revenues and expenses of foreign operations are translated into Japanese yen at the average rates of exchange over the reporting period, unless there are material fluctuations in exchange rates. Exchange differences arising from such translations in foreign operations' financial statements are recognized in other comprehensive income, and are included and accounted for in other components of equity.

4) Cash and Cash Equivalents

Cash and cash equivalents comprise cash in hand, deposits that can be withdrawn as needed, and short-term investments that are easily converted into cash with minimal risk of changes in value.

5) Inventories

Inventories are measured at the lower of cost or net realizable value. Cost of inventories is calculated based on the weighted-average cost formula. Net realizable value is the estimated selling price of inventories in the ordinary course of business, less the estimated costs of completion and estimated selling expenses. Inventories and work in process manufactured by the Company include the amounts of manufacturing overhead appropriately allocated based on the ordinary operating rate.

6) Property, Plant and Equipment (Excluding Right-of-use Assets)

The cost model has been adopted, and all property, plant and equipment are measured at cost less any accumulated depreciation and accumulated impairment losses. Cost includes costs directly attributable to the acquisition of the assets, and the present value of the estimated costs of removal of the assets and site restoration. Furthermore, borrowing costs that satisfy certain conditions directly attributable to the acquisition, construction, etc., of the assets are recognized as part of the cost of the assets.

Depreciation expenses are recognized using the straight-line method over the estimated useful life of each asset to depreciate the cost less the residual value of the asset. The estimated useful lives, residual values, and depreciation methods are reviewed at the end of the reporting period. In the event of the modification in estimates, impacts therefrom are recognized in the accounting period in which the estimates were modified and in the future accounting periods.

The estimated useful lives of major assets are as follows:

- Buildings and structures: 10 to 50 years
- Machinery, equipment, and vehicles: 5 to 25 years
- Tools, furniture, and fixtures: 3 to 10 years

7) Intangible Assets

(i) R&D Expenses

Research-related expenditures are recognized as expenses when they are incurred. Development-related expenditures are capitalized as intangible assets only when all of the following conditions are satisfied: the amount for such expenditures can be reliably measured; the products or the processes to be developed therefrom are technically and commercially viable; there is a high probability of generating future economic benefits; and the Group intends to complete the development and use the process or the products therefrom as well as sufficient resources to make them feasible. All other expenditures are recognized as expenses when they are incurred.

(ii) Goodwill

The measurement of goodwill at initial recognition is stated in "2) Business combinations." The Group does not amortize goodwill, but tests for impairment every fiscal year. Impairment of goodwill is stated in "8) Impairment of non-financial assets." Impairment losses of goodwill are recognized as profit or loss and not reversed subsequently.

After the initial recognition, goodwill is presented at cost less accumulated impairment losses.

(iii) Intangible Assets Acquired as a Result of a Business Combination

Cost of intangible assets acquired as a result of a business combination is measured at fair value on the acquisition date.

Intangible assets acquired as a result of a business combination are accounted after initial recognition at cost less any accumulated amortization and accumulated impairment losses, which are amortized using the straight-line method over the estimated useful life of each asset.

The estimated useful life of major assets is as follows:

- Technology-based intangible assets: 5 years

(iv) Intangible Assets Acquired Individually

Other intangible assets acquired individually inclusive of software, etc., are accounted at cost less any accumulated amortization and accumulated impairment losses, which are amortized using the straight-line method over the estimated useful life of each asset.

The estimated useful life of major asset is as follows:

- Software: 5 years

8) Impairment of Non-financial Assets

The Group assesses its non-financial assets, excluding inventories and deferred tax assets at the end of each reporting period to identify any indications of a potential inability to recover the carrying amount due to changes in such assets or circumstances. If any such indication exists, impairment testing is conducted.

If the carrying amount of an asset exceeds its recoverable amount, the difference is recognized as impairment loss.

The recoverable amount of an asset is the higher of the fair value less costs of disposal and the value in use. In calculating the value in use, the estimated future cash flows from the asset are discounted to the present value using a discount rate that reflects the time value of money and the inherent risks of the asset. For the purposes of determining impairment, assets are grouped into an individual asset or the smallest asset group (cash-generating unit) generating cash inflows that are largely independent of the cash flows of other assets.

Goodwill is tested for impairment once a year periodically, regardless of whether any indications of impairment exist, and the cost at the time of acquisition less any accumulated impairment losses is recognized as the carrying amount.

In the case of property, plant and equipment and intangible assets, excluding goodwill, for which impairment losses have been recognized in prior years, an assessment is conducted at the end of each reporting period to determine if there are any possibilities of reversal of such impairment losses.

9) Financial Instruments

(9.1) Financial Assets

(i) Initial Recognition and Measurement

The Group initially recognizes financial assets on the date when it becomes a party to the contract on the financial instruments concerned. Financial assets bought or sold by ordinary methods are initially recognized on the transaction date. Financial assets are subsequently classified into those measured at amortized cost or those measured at fair value.

Financial assets measured at fair value through profit or loss are initially measured at fair value. Financial assets measured at fair value through other comprehensive income and financial assets measured at amortized cost are initially measured at fair value plus transaction costs that are directly attributable to the acquisition of the financial asset. Additionally, trade receivables that do not include significant financing components are initially measured at the transaction price.

(a) Financial assets measured at amortized cost

Financial assets are classified as those measured at amortized cost only when both of the following conditions are satisfied; the asset is held within a business model whose objective is to hold assets in order to collect contractual cash flows; and the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(b) Financial assets measured at fair value

Financial assets are classified as those measured at fair value if they fail to meet either of the two requirements given above.

Of these assets, financial assets that generate, on specified dates, cash flows that are solely payments of principal and interest on the principal amount outstanding and are held within a business model whose objective is achieved both by collecting contractual cash flows and by selling the assets are classified as debt financial assets measured at fair value through other comprehensive income.

Moreover, for certain equity financial assets, the Group has made an irrevocable election to present subsequent changes in fair value in other comprehensive income and to classify these assets as equity financial assets measured at fair value through other comprehensive income.

Financial assets such as derivative assets, other than the above assets, are classified as financial assets measured at fair value through profit or loss.

(ii) Subsequent Measurement

After initial recognition, financial assets are measured according to their classification as follows:

(a) Financial assets measured at amortized cost

Measured at amortized cost using the effective interest method

(b) Financial assets measured at fair value

Measured at fair value on the reporting date

Any changes in the fair value of financial assets are recognized in profit or loss or in other comprehensive income according to their respective classification of the financial asset. Dividends received from designated equity instruments measured at fair value through other comprehensive income are recognized in profit or loss. If the fair value of the equity instrument depreciates materially or if the equity instrument is disposed of, any accumulated other comprehensive income or loss is reclassified to retained earnings.

(iii) Derecognition

Financial assets are derecognized when the contractual rights to the cash flows from the investment expire or when the contractual rights to the cash flows from the investment are assigned and substantially all the risks and rewards of the Group's ownership of such financial assets are transferred.

(9.2) Financial Liabilities

(i) Initial Recognition and Measurement

The Group initially recognizes financial liabilities on the contract date. Financial liabilities are initially measured at fair value less transaction costs that are directly attributable to the acquisition of the financial liability.

(ii) Subsequent Measurement

After initial recognition, financial liabilities are measured according to their classification as follows:

(a) Financial liabilities measured at amortized cost

Measured at amortized cost using the effective interest method

(b) Financial liabilities measured at fair value through profit or loss

Financial liabilities measured at fair value through profit or loss, which include those designated financial liabilities measured at fair value through profit or loss, are measured at fair value.

(iii) Derecognition

Financial liabilities are derecognized when contractual obligations are discharged, cancelled, or expired.

(9.3) Offsetting Financial Instruments

Financial assets and liabilities are offset if and only if: there is a legally enforceable right to set off the recognized amount of financial assets against the recognized amount of financial liabilities; there is the intent either to settle on a net basis or to realize assets and settle liabilities simultaneously.

10) Impairment of Financial Assets

The Group estimates expected credit losses as of the reporting date for financial assets measured at amortized cost.

If the credit risk has not increased materially from initial recognition, the 12-month expected credit loss is recognized as a loss allowance. In the case of trade receivables that do not include significant financial components, however, the loss allowance is always measured at lifetime expected credit loss. If the credit risk has increased materially from initial recognition, the lifetime expected credit loss is recognized as a loss allowance. Judgment as to whether or not a material increase in credit risk has occurred from the initial recognition is based on the degree of changes in default risk. When the Group judges whether or not there are material changes in default risk, it reviews the information on the past due status as well as the following factors;

- External credit grades of the financial asset
- Internal credit grades
- Results of operations of the borrower
- Financial assistance from the parent company, etc. of the borrower

Expected credit losses are measured as weighted average of the present value of the difference between all contractual cash flows that are due to the entity in accordance with the contract and all cash flows that the entity expects to receive, weighted by respective risks of default occurring. The Group treats any financial asset as a credit-impaired financial asset in cases where the financial asset is considered to have defaulted, including cases where the financial asset is significantly past due even after enforcement activities for the performance of obligations are taken and where the debtor files legal proceedings for bankruptcy, corporate reorganization, civil rehabilitation or special liquidation. The Group presents the financial assets measured at amortized cost at the net amount that the loss allowance is deducted from the carrying amount in the consolidated statement of financial position and recognizes the loss as profit or loss.

When the Group has no reasonable expectations of recovering all or part of a financial asset, the carrying amount of the asset is directly written off by that amount.

11) Derivatives and Hedge Accounting

Derivatives are initially recognized at fair value at the date on which the derivative contract is entered into and are subsequently remeasured at their fair value at the end of each reporting period after initial recognition. The method of recognizing the resulting gain or loss depends on whether or not the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged.

The Group designates certain derivatives as hedging instruments of cash flow hedges (hedges of a particular risk associated with a recognized asset or liability, or a highly probable forecast transaction), and certain foreign currency borrowings as hedging instruments of net investment in foreign operations.

The Group documents, at the start of the transaction, the relationship between hedging instruments and hedged items as well as the objectives and strategies for managing risk regarding the execution of their hedging transactions. Furthermore, the Group documents at the start of the hedge, and on a continuing basis, assessments of whether or not the derivatives used in the hedging transaction are effective in offsetting changes in the hedged items' cash flow.

Hedge effectiveness is assessed on a continuing basis, and a hedge is deemed effective when it satisfies all of the following conditions: an economic relationship exists between hedged items and hedging instruments; the effect of credit risk is not such that it materially dominates value changes arising from the economic relationship; and the hedge ratio of the hedging relationship is equivalent to the ratio arising from the volume of hedging instruments and hedged items that are actually being hedged.

The effective portions of change in the fair values of derivatives designated as hedging instruments of cash flow hedges and satisfying the conditions thereof are recognized in other comprehensive income. Gains or losses arising from ineffective portions are recognized immediately as profit or loss. Accumulated gains or losses recognized through other comprehensive income are reclassified to profit or loss in the period when the cash flow originating from the hedged items has an effect on profit or loss.

When hedge accounting conditions are no longer satisfied due to forfeit, sale, etc., of hedging instruments, hedge accounting will no longer be applied prospectively. When hedged future cash flow is expected to occur again, the accumulated gains or losses recognized in other comprehensive income will continue to be recognized as other components of equity. In cases where forecast transactions are no longer expected to occur, the accumulated gains or losses recognized in other comprehensive income are reclassified immediately to profit or loss.

With regard to certain foreign currency borrowings that are retained for the purpose of hedging exposure to exchange rate fluctuation risks for net investments in foreign operations, the portion of foreign exchange differences deemed effective as a hedge is recognized in other comprehensive income as hedges of net investment in foreign operations. Of exchange differences in the hedging instruments, any ineffective portion of the hedge or any portion of the hedge not subject to the assessment of hedge effectiveness is recognized in profit or loss.

Through net investment hedges, the cumulative amount of gain or loss recognized in other comprehensive income is reclassified to profit or loss on the disposal of foreign operations.

12) Leases

Fiscal year ended March 31, 2019 (from April 1, 2018 to March 31, 2019)

Lease transactions are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee, while all other leases are classified as operating leases.

Whether a contract is a lease or whether a contract contains a lease is determined based on the substance of the contract following IFRIC 4 — *Determining Whether an Arrangement Contains a Lease,* even when the contract is not legally a lease-type contract.

In finance lease transactions, lease assets and lease liabilities are recognized in the consolidated statement of financial position at the lower of the fair value of the leased property calculated on the inception date of the lease term and the aggregate present value of the minimum lease payments. Lease payments are allocated to liabilities and finance costs. Interest components in finance costs are expensed as profit or loss over the lease term in such a way that a fixed term interest rate applies to the liability balance in each reporting period. Lease assets are depreciated using the straight-line method based on the accounting policies applied to the assets.

In operating lease transactions, lease payments are recognized as an expense over the lease term on a straight-line basis.

Fiscal year ended March 31, 2020 (from April 1, 2019 to March 31, 2020)

At inception of a contract, the Group assesses whether the contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group elects not to recognize right-of-use assets and lease liabilities for short-term leases within 12 months and leases of low-value assets.

Apart from short-term leases or leases of low-value assets, the group records right-of-use assets and lease liabilities in the Consolidated Statement of Profit or Loss at the lease commencement date when a contract is, or contains a lease. The lease payments associated with short-term leases and leases of low-value assets are recognized as an expense on a straight-line basis over the lease term.

Right-of-use assets are measured under the cost model and are stated at cost less accumulated depreciation and accumulated impairment losses.

The cost of right-of-use assets is initially measured based on the initial measurement amount of the lease liability adjusted for any initial direct costs incurred or any lease payments made at or before the commencement date, plus any costs to restore the underlying asset or the site at which it is located and other related costs required in the lease contract. Right-of-use assets are depreciated over the lease term on a straight-line basis. Right-of-use assets are recorded in Property, plant and equipment on the current

Consolidated Statement of Financial Position. Lease liability is measured at the present value of unpaid lease payments at the calculated interest rate of the lease or when the calculated interest rate cannot be easily calculated, discounted by the incremental borrowing rate. Generally, the Group uses incremental borrowing rate as discount rate. Lease payments are apportioned between finance costs and repayments of lease liability under the effective interest rate method. Finance costs are recognized in the consolidated statement of profit or loss.

13) Employee Benefits

(i) Short-term Employee Benefits
Short-term employee benefits are recognized as an expense in the period in which the employee renders the related service without discounting. Bonus payments are recognized as liabilities in the amount estimated to be paid based on the applicable bonus payment system when there is a legal or constructive obligation to pay and the obligation can be estimated reliably.
(ii) Long-Term Employee Benefits
The Group has adopted defined contribution plans and defined benefit plans as post-employment benefit plans for employees.

Liabilities (assets) recognized in connection to defined benefit pension plans are calculated at the present value of defined benefit obligations under such plans at the end of the reporting period less the fair value of the plan assets. An independent specialist calculates the defined benefit obligations for each reporting period using the projected unit credit method. Any amount recognized as assets from this calculation is limited to the present value of any future economic benefit available in the form of refunds from the plans or reductions in future contributions to the plans when there is a possibility for the assets to generate these to the Group. Calculations of the present value of economic benefits take into consideration the minimum funding requirement. The present value of defined benefit obligations is calculated by discounting the estimated future cash flows in reference to market yields on high-quality corporate bonds that pay benefits and with maturities similar to the estimated timing of payment of the obligations.

Changes due to remeasurements of net defined benefit liabilities (assets) that were recognized in other comprehensive income in the period they occurred are immediately reclassified from other comprehensive income to retained earnings.

Defined contribution plans are post-employment benefit plans under which an employer pays fixed contributions to an independent entity and has no legal or constructive obligation to pay further contributions. Contribution obligations under the defined contribution plans are recognized as an expense in the period in which the employee renders the related service.

14) Non-current Assets Held for Sale and Discontinued Operations

A non-current asset or disposal group is classified as held for sale if its carrying amount will be recovered principally through a sale transaction rather than through continued use.

The conditions for classifying an asset or disposal group as held for sale are that it must be available for immediate sale in its present condition and the sale must be highly probable. The classification is also limited to when management of the Group is committed to executing the sale plan and the sale is generally expected to complete within one year. After classification as held for sale, an asset or disposal group is measured at the lower of the carrying amount and the fair value less costs to sell, and is not depreciated or amortized.

A discontinued operation includes a component of the Group that either has been disposed of or is classified as held for sale, represents a line of business or geographical area of the Group, and is recognized when there is a plan to dispose of that line of business or geographical area.

15) Provisions

Provisions are recognized if the Group has a present legal or constructive obligation as a result of a past event that can be estimated reliably and it is probable that an outflow of resources will be required to settle the obligation.

When the time value of money is significant, the estimated future cash flow is discounted by the present value using a before-tax discount rate that reflects the time value of money and inherent risks of the liability. Transfer-backs of the discounted amount over time are recognized as finance costs.

16) Share Capital

The issue price of equity instruments issued by the Company is recognized in share capital and capital surplus, and direct issue costs (net of tax effects) are deducted from capital surplus.

On the purchase of treasury shares, costs net of tax effects including direct transaction costs are recognized as an equity deduction. On the sale of treasury shares, including disposal of treasury shares with the exercise of stock options, the balance of disposals is recognized as capital surplus. Common shares are classified to equity.

17) Share-based Remuneration Plans

(i) Stock Options
The Group operated an equity-settled share-based remuneration plan where the Group received services from directors, executive officers, and employees as well as paid equity instruments (options) as consideration thereof until June 2018.

The fair value on the date the option was granted under the plan is recognized as an expense over the option's vesting period and the same amount is recorded as an increase in equity. The plan was terminated in June 2018 (however, of share acquisition rights as share-based stock options that were already granted to directors, etc., those share acquisition rights which have not been exercised will be continued).
(ii) Restricted Share-based Remuneration Plan
The Company has adopted the restricted share-based remuneration plan for its directors and others as a performance-linked remuneration plan and applied the accounting treatment for equity-settled share-based plans under this plan.

Fair value of the share-based remuneration is determined using the fair value of ordinary shares on the grant date. The fair value is recognized as an expense over the share's vesting period, and the same amount is recorded as an increase in equity.

18) Revenue Recognition

The Group recognizes revenue by applying the following five steps, apart from interest and dividend income accounted for in accordance with IFRS 9 — Financial Instruments.

Step 1: Identify the contract with a customer.
Step 2: Identify the performance obligations in the contract.
Step 3: Determine the transaction price.
Step 4: Allocate the transaction price to performance obligations.
Step 5: Recognize revenue when (or as) the Group satisfies a performance obligation.

In case of sales contracts with customers for products and merchandise, the Group recognizes the sale as revenue when the products and merchandise are delivered to the customer, considering that control of the products and merchandise is transferred to the customer and the performance obligation is fulfilled. For rendering of services, the Group recognizes revenue over time with fulfillment of performance obligation based on the contract between the Group and the customer.

19) Government Grants

Government grants are recognized when there is reasonable assurance that the Group will comply with the conditions attached to the grant and that the grant will be received. Government grants are recognized in profit or loss on a systematic basis over the period the associated costs, which the grant is intended to compensate, are recognized as expenses.

For government grants associated with acquiring assets, the amounts of the grants are deducted directly when calculating the carrying amounts of the assets. Grants are recognized in profit or loss over the useful lives of the depreciated assets as changes in depreciation expense.

20) Finance Income and Finance Cost

Finance income comprises interest received, dividends received, etc. Interest received is recognized when it incurred using the effective interest method. Dividends received are recognized when the Group's rights to receive dividends have been established; there is a high probability that the economic benefits associated with the dividends will flow into the Group; the amounts can be measured reliably.

Finance cost comprises interest paid, etc.

With respect to an asset that necessarily takes a substantial period of time to get ready for its intended use or sale, borrowing costs that are directly attributable to the acquisition, construction or manufacture of the asset form part of the cost of that asset. All other borrowing costs are recognized as an expense in the period in which they are incurred.

21) Income Taxes

Income taxes comprise current taxes and deferred taxes. They are recognized in profit or loss, with the exception of income taxes associated with items recognized in other comprehensive income or items that are directly recognized in equity.

(i) Current Taxes

The Group recognizes current taxes based on taxable profits for the reporting period. Current tax amounts are calculated using the tax rates that are in force or substantially in force on the final day of the reporting period. Income taxes receivable and payable are measured at the estimated refund from or payment to the tax authorities.

(ii) Deferred Taxes

The Group recognizes deferred taxes using the asset and liability approach for temporary differences between the amounts of assets and liabilities for accounting purposes and their tax bases. In principle, deferred tax liabilities are all recognized in taxable temporary differences, and deferred tax assets are recognized only to the extent it is probable that there will be taxable profits against which deductible temporary differences, tax losses, etc., may be utilized. Deferred tax assets and liabilities, however, are not recognized for the following temporary differences:

- Taxable temporary differences arising from initial recognition of goodwill;
- Temporary differences arising from initial recognition of assets or liabilities in transactions (excluding business combinations) that do not affect taxable profits (tax losses) in profit or loss for accounting purposes; and
- Taxable temporary differences pertaining to investments in subsidiaries and associates where the timing of the reversal of the temporary differences can be controlled by the Group and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets pertaining to deductible temporary differences associated with investments in subsidiaries and associates are recognized only to the extent that the temporary difference will reverse in the foreseeable future and that it is probable that there will be adequate taxable profits against which benefits from the temporary difference can be utilized.

Deferred tax assets and liabilities are calculated at the tax rates expected to apply to the period when the associated deferred tax assets will be realized or the period when the deferred tax liabilities will be settled, based on the tax rates that are in force or substantially in force at the end of the reporting period.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred tax assets and liabilities are associated with the income taxes levied on the same taxable entity, or the equivalent or different taxable entity intended to be settled on a net basis, by the same tax authority.

22) Earnings per Share

Basic quarterly earnings per share are calculated by dividing profit for the quarter attributable to ordinary shareholders by the weighted-average number of common stock outstanding during the reporting period. Diluted quarterly earnings per share are calculated through adjustments for the effect of all potentially dilutive common stock.

(5) Changes in Accounting Policies

The Group has applied the following standard from the current fiscal year.

IFRS	Summary of New / Revised Standard
IFRS 16 — Leases	Revision of accounting related to lease contracts

The Group has applied IFRS 16 — *Leases* ("IFRS 16") from the current consolidated fiscal year. For the adoption of IFRS 16, the Group has employed a method of recognizing the cumulative effect of the standard's application, deemed to be a transitional measure, as the balance of retained earnings at the beginning of the current fiscal year at the date of initial application, without presenting a restatement of comparative information (modified retrospective approach).

At inception of a contract, the Group assesses whether the contract is, or contains, a lease based on whether the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group elects not to recognize right-of-use assets and lease liabilities for short-term leases within12 months and leases of low-value assets.

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date when a contract is assessed to be, or contains, a lease. The lease liability of a lease transaction is measured at the discounted present value of the total unpaid value of lease payments at the lease commencement date. The right-of-use asset is initially measured based on the initial measurement amount of the lease liability adjusted for any initial direct costs incurred or any lease payments made at or before the commencement date, plus any costs to restore the underlying asset or the site at which it is located and other related costs required in the lease contract. The right-of-use asset is periodically depreciated over the term of the lease. Lease payments are allocated to finance costs and an amortization component of the lease liability balance, in such a way as to apply a fixed interest rate to the lease liability balance. Finance costs are categorized and recorded as depreciation pertaining to the right-of-use asset in the Consolidated Statement of Profit or Loss.

Whether a contract is a lease or contains a lease is determined based on the substance of the contract, even when the contract is not legally a lease-type contract. The lease payments associated with short-term leases within 12 months and leases of low-value assets are recognized as an expense on a straight-line basis over the lease term.

As a result of the transition to IFRS 16, right-of-use assets of ¥13,810 million ($126,899 thousand) have been additionally recognized in *Property, plant and equipment* and lease liabilities of ¥13,678 million ($125,678 thousand) have been additionally recognized in *Other financial liabilities* under current liabilities and non-current liabilities in the Consolidated Statement of Financial Position at the date of initial application. The weighted average incremental borrowing rate applied to lease liabilities recognized at the date of initial application of IFRS 16 was 3.0%.

The minimum future lease payments under non-cancellable operating leases to which IAS 17 "Leases" were applied at the end of the fiscal year immediately before the date of initial application, and the lease liability recognized at the date of initial application (excluding ¥1,731 million ($15,903 thousand) in finance lease obligations at the end of the previous fiscal year) has a difference of ¥4,602 million ($42,287 thousand). The main reason for this difference is a cancelable operating lease agreement.

(6) Significant Accounting Estimates and Judgments Involving Estimates

In the preparation of consolidated financial statements, management is required to make judgments, estimates, and assumptions.

The estimates and the underlying assumptions are reviewed on an ongoing basis, and the effects of the review are recognized in the period in which the review was conducted and in future periods. Actual results may differ from these estimates.

Estimates and judgments that have significant effects on amounts recognized in the Group's consolidated financial statements are as follows. These assumptions have been determined based on management's best estimates and judgments. However, the assumptions may be affected by results of uncertain changes in economic conditions in the future and amendment or promulgation of related laws and regulations, and if a review is necessary, this may have significant effects on amounts recognized in consolidated financial statements in the following fiscal years.

1) Impairment of Non-Financial Assets

In the calculation of recoverable amount in impairment test, certain assumptions have been made for useful life of the asset, future cash flows, discount rate reflecting risks inherent to the asset, long-term growth rate and others. Details of the method for calculating recoverable amount, etc. are provided in the note "(18) Impairment of Non-Financial Assets."

2) Employee Benefits

The present value of defined benefit plan obligations, service cost, etc. pertaining to post-employment benefit plans adopted by the Group have been calculated based on actuarial assumptions. For actuarial assumptions, estimates and judgments on a variety of variables including discount rate are required. Actuarial assumptions and related sensitivity are provided in the note "(23) Employee Benefits."

3) Recoverability of Deferred Tax Assets

For the recognition of deferred tax assets, the amount is determined, assuming the probability that there will be taxable profits, by estimating the timing when taxable profits that can be obtained in the future are available and the amount of these profits based on the business plan. The relevant content and amount of deferred tax assets are provided in the note "(20) Income Taxes."

(7) Segment Information

1) Overview of Reportable Segments

JSR Group's reportable segments are based on its business segments for which separate financial information is available and which the Board of Directors determines the basis that are subject to regular reviews for decisions on the allocation of managerial resources and the evaluation of business results.

The Group has established divisions by product at its head office. Each division formulates comprehensive domestic and overseas strategies for its products and conducts business activities according to the strategies. Core Group companies also take the initiative in working out comprehensive domestic and overseas strategies and conduct business activities according to the strategies. Thus, JSR Group's businesses consist of business segments by product based on divisions and core Group companies.

JSR Group has four reportable segments: Elastomers Business, which is engaged mainly in the manufacture and sale of general-purpose synthetic rubber products for automobile tires, functional special synthetic rubber for automobile components, thermoplastic elastomers for modifying plastics, and synthetic rubber latex for coated paper; Plastics Business, which is engaged mainly in the manufacture and sale of ABS and other resins for automobiles, office equipment, and amusement applications; Digital Solutions Business, which is engaged mainly in the manufacture and sale of semiconductor materials, display materials, and products related to edge computing; and Life Sciences Business. The Digital Solutions Business is a reportable segment comprising multiple segments based on the nature of the products and services, the nature of production processes, and similarity in markets and other economic characteristics.

The accounting methods for reportable segments are the same as the methods adopted for the preparation of consolidated financial statements.

The Group has classified the lithium-ion capacitor business as discontinued operations from the current fiscal year. Accordingly, 2) Reportable Segment Revenues, Profits and Losses, Assets and other material items and 4) Information by Region present amounts only for continuing operations excluding the lithium-ion capacitor business.

Main Products in Each Business Segment

Business segments	Main products
Elastomers Business	Synthetic rubbers, such as styrene-butadiene rubber, poly-butadiene rubber, ethylene and propylene rubber and compounded products; thermoplastic elastomers and compounded products; latex for paper processing; general industrial-use latex; acrylic emulsions; natural latex compounded products; high-functional coating materials; high-functional dispersants; industrial particles; materials for heat insulation paints; materials for batteries; butadiene monomers; etc.
Plastics Business	Synthetic resins including ABS resins, AES resins, AS resins, and ASA resins
Digital Solutions Business	<Semiconductor Materials> Lithography materials (photoresists, multilayer materials); CMP materials; mounting materials; etc. <Display Materials> Materials for color LCDs; functional coating materials; etc. <Edge Computing Materials> Heat-resistant transparent resins and functional films; photo fabrication and photo molding systems; etc.
Life Sciences Business	Diagnostic and research reagents and similar materials; bio-process materials; drug discovery and development services, etc.

2) Segment Revenues, Profits or Losses, Assets and Other Material Items

The following information pertains to the Group's reportable segments.

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

	Millions of yen							
	Reportable Segment							
	Elastomers	Plastics	Digital Solutions	Life Sciences	Other [Note 1]	Total	Adjustment [Note 2]	Amount Recorded in the Consolidated Financial Statements
Revenue from external customers	¥200,736	¥105,446	¥142,216	¥ 43,872	¥3,083	¥495,353	¥ 1	¥495,354
Operating profit (loss)	7,421	9,214	32,663	781	135	50,214	(4,953)	45,261
Finance income						—		2,499
Finance costs						—		(1,352)
Profit before tax						—		46,408
Segment assets	291,256	77,794	131,779	114,353	9,594	624,775	64,193	688,968
Other items								
Depreciation and amortization	8,821	2,395	6,036	3,740	214	21,207	584	21,790
Impairment losses	—	—	—	—	—	—	—	—
Capital expenditures	19,738	3,108	7,194	5,218	—	35,257	724	35,981

Note 1: The Other segment is a business segment not contained in the reportable segments. It includes the purchase and sale of chemicals and other businesses.
Note 2: The operating profit or operating loss downward adjustment of ¥4,953 million contains company-wide profits and losses not allocated to the reportable segments. The adjustment amounts in the segment assets line are corporate assets not allocated to any reportable segment. Corporate assets mainly include investment of surplus funds (deposits, cash equivalents, and long-term investment funds (securities (equity financial assets))) owned by the parent company.

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Millions of yen							
	Reportable Segment							
	Elastomers	Plastics	Digital Solutions	Life Sciences	Other [Note 1]	Total	Adjustment [Note 2]	Amount Recorded in the Consolidated Financial Statements
Revenue from external customers	¥178,794	¥95,092	¥144,805	¥ 50,496	¥ 2,779	¥471,967	¥ 0	¥471,967
Operating profit (loss)	(1,758)	6,237	30,917	3,594	(250)	38,739	(5,855)	32,884
Finance income						—		1,929
Finance costs						—		(2,184)
Profit before tax						—		32,629
Segment assets	260,488	69,035	145,736	129,485	11,485	616,230	58,837	675,068
Other items								
Depreciation and amortization	9,925	2,372	6,627	5,420	221	24,565	1,778	26,343
Impairment losses	1,454	—	—	60	—	1,514	—	1,514
Capital expenditures	15,560	2,891	18,341	8,613	—	45,405	475	45,880

Note 1: The Other segment is a business segment not contained in the reportable segments. It includes the purchase and sale of chemicals and other businesses.
Note 2: The operating profit or operating loss downward adjustment of ¥5,855 million contains company-wide profits and losses not allocated to the reportable segments. The adjustment amount in the segment assets line are corporate assets not allocated to any reportable segment. Corporate assets mainly include investment of surplus funds (deposits, cash equivalents and long-term investment funds (securities (equity financial assets))) owned by the parent company.
Note 3: In the Elastomers Business, impairment losses of 1,454 million yen were recorded for fixed assets associated with the production of general-purpose rubber products.

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Thousands of U.S. dollars							
	Reportable Segment							
	Elastomers	Plastics	Digital Solutions	Life Sciences	Other [Note 1]	Total	Adjustment [Note 2]	Amount Recorded in the Consolidated Financial Statements
Revenue from external customers	$1,642,872	$873,770	$1,330,565	$ 463,987	$ 25,538	$4,336,733	$ 1	$4,336,734
Operating profit (loss)	(16,157)	57,311	284,083	33,021	(2,296)	355,962	(53,799)	302,163
Finance income						—		17,723
Finance costs						—		(20,070)
Profit before tax						—		299,815
Segment assets	2,393,533	634,341	1,339,118	1,189,793	105,535	5,662,321	540,634	6,202,954
Other items								
Depreciation and amortization	91,198	21,792	60,897	49,805	2,027	225,718	16,342	242,060
Impairment losses	13,356	—	—	552	—	13,908	—	13,908
Capital expenditures	142,972	26,566	168,528	79,144	—	417,209	4,366	421,575

Note 1: The Other segment is a business segment not contained in the reportable segments. It includes the purchase and sale of chemicals and other businesses.
Note 2: The operating profit or operating loss downward adjustment of $53,799 thousand contains company-wide profits and losses not allocated to the reportable segments. The adjustment amount in the segment assets line are corporate assets not allocated to any reportable segment. Corporate assets mainly include investment of surplus funds (deposits, cash equivalents and long-term investment funds (securities (equity financial assets))) owned by the parent company.
Note 3: In the Elastomers Business, impairment losses of 1,454 million yen ($13,356 thousand) were recorded for fixed assets associated with the production of general-purpose rubber products.

3) Information on Products and Services

Information on products and services is stated on "1) Overview of reportable segments."

4) Information by Region

The following is a breakdown of revenue and non-current assets by region.

Revenue from External Customers

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Japan	¥220,288	¥198,238	$1,821,540
China	63,876	67,022	615,837
U.S.	58,192	60,403	555,023
Other regions	152,999	146,304	1,344,334
Total	¥495,354	¥471,967	$4,336,734

Note: Revenue is divided into countries or regions based on the locations of customers.

Property, Plant and Equipment

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Japan	¥ 93,327	¥111,160	$1,021,408
Thailand	27,202	25,287	232,349
Hungary	32,075	37,867	347,943
U.S.	13,968	23,769	218,406
Other regions	16,886	17,582	161,556
Total	¥183,457	¥215,664	$1,981,661

Note: We confine items presented to property, plant and equipment considering cost of the preparation.

5) Information on Major Customers

Information on major customers is omitted, since no single external customer accounts for more than 10 percent of the Group's revenue in terms of revenue through transactions with a single external customer.

(8) Business Combination and Acquisition of Non-controlling Interest

1) Business Combination

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

1. Absorption-type split in which a subsidiary is the successor company

(1) Overview of the Business Combination

The Company executed an absorption-type split dated April 1, 2019, with UMG ABS, Ltd., which was equally owned by Ube Industries, Ltd. (50%) and Mitsubishi Chemical Corporation (50%), as the absorbed company and Techno Polymer Co., Ltd. (renamed Techno-UMG Co., Ltd. on April 1, 2019), a wholly owned subsidiary of the Company, as the successor company.

In keeping with the absorption-type split, Techno-UMG Co., Ltd. issued new common shares so that the Company owns 51% of the issued shares of Techno-UMG Co., Ltd.

(i) Name of acquired company and business domain
Name of acquired company: UMG ABS, Ltd.
Business domain: manufacture and sale of ABS resins

(ii) Date of business combination
April 1, 2018

(iii) Method by which the acquiring company obtained control of the acquired company
Absorption-type split through the allocation of 58,800 common shares of Techno Polymer Co., Ltd., with UMG ABS, Ltd. as the absorbed company and Techno Polymer Co., Ltd. as the successor company

(2) Primary Reason for the Business Combination

The conditions surrounding the ABS resin business will become increasingly challenging both in and outside of Japan. The primary purpose of the business combination is to optimize operations, enhance manufacturing efficiencies, and secure cost competitiveness for the ABS resin business, in order to ensure the stable supply of products in Japan and expand sales in global markets.

(3) Fair Value of Assets Acquired, Liabilities Assumed, and Goodwill Recognized on the Acquisition Date

(i) Fair value of the consideration transferred
Techno-UMG Co., Ltd. common shares: ¥19,350 million

(ii) Share valuation method
The Company calculated the share valuation in consultation with the transaction parties, referring to a share valuation report and other materials received from a third-party appraiser.

(iii) Assets acquired, liabilities assumed, and goodwill recognized as of the acquisition date (April 1, 2018).

	Millions of yen
Current assets	
Cash and cash equivalents	¥ 2,617
Trade and other receivables	10,508
Inventories	6,945
Other	736
Non-current assets	
Property, plant and equipment	11,356
Other intangible assets	357
Deferred tax assets	992
Other	1,775
Assets acquired	35,287
Current liabilities	
Trade and other payables	13,865
Borrowings	3,450
Income taxes payable	719
Other	910
Non-current liabilities	
Borrowings	80
Retirement benefit liability	629
Other	45
Liabilities assumed	19,698
Recognized value of assets acquired and liabilities assumed (net amount)	15,589
Goodwill	3,760

Goodwill is primarily composed of synergies with existing businesses and excess earning power that are expected to arise from the acquisition, which do not individually fulfill the criteria for recognition. Furthermore, the goodwill is not deductible for tax purposes.

The amount of goodwill included in the consolidated statement of financial position as of the date of the business combination was ¥1,918 million because of the change in ownership ratio in Techno-UMG Co., Ltd.

(4) Acquisition-related Costs
Acquisition-related costs pertaining to the business combination were ¥136 million including those incurred prior to the current fiscal year. The amount incurred in the current fiscal year is accounted for as an expense in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

(5) Impact on Cash Flows of Business Combination

	Millions of yen
Cash and cash equivalents held by the company acquired on the date of acquisition	¥3,213
Proceeds from the company's split	¥3,213

(6) Impact on the Group's Result
A quantitative statement of the impact on the Group's result has been omitted as it is difficult to calculate rationally the quantitative effect on the Group during the current fiscal year.

(7) Effect on Non-controlling Interests
Non-controlling interests increased by ¥17,625 million due to the decrease in the ownership ratio in Techno-UMG Co., Ltd. from 100 percent to 51 percent.

2. Subsidiary Establishment by Means of the Acquisition of Crown Bioscience International

(1) Overview of the Business Combination

(i) Name of acquired company and business domain
Name of acquired company: Crown Bioscience International
Business domain: drug discovery and development services

(ii) Acquisition date
May 31, 2018

(iii) Percentage of voting rights acquired
100%

(iv) Method for the acquiring company to obtain control over the acquired company
Acquisition of shares in exchange for cash payment

(v) Primary reason for the business combination
The primary purpose of the business combination is to incorporate a drug discovery and development contracting business into the Group's Life Sciences Business and to provide seamless value to the pharmaceutical industry, from the provision of products and services for drug-discovery processes to GMP manufacturing.

(2) Fair Value of Consideration Transferred and Recognized Value of Assets Acquired and Liabilities Assumed on the Acquisition Date

	Millions of yen
Fair value of consideration	¥40,583
Current assets	
Cash and cash equivalents	4,398
Trade and other receivables	2,164
Other	429
Non-current assets	
Property, plant and equipment	2,412
Other intangible assets	2,438
Deferred tax assets	132
Other	87
Assets acquired	12,060
Current liabilities	
Trade and other payables	1,282
Other	3,941
Non-current liabilities	
Borrowings	2,581
Deferred tax liabilities	376
Liabilities assumed	8,180
Non-controlling interests	157
Goodwill	36,860

As of March 31, 2019, the allocation of the purchase price, for the amount of goodwill incurred and the amounts of assets acquired and liabilities assumed on the date of the business combination, was completed because the identifiable assets and liabilities on the date of the business combination were identified. As a result, goodwill decreased ¥1,257 million from the amount calculated provisionally. The increase in the assets and liabilities received from the original provisional amounts is other intangible assets of ¥1,505 million and deferred tax liabilities of ¥248 million.

Acquisition-related costs pertaining to the business combination were ¥335 million including those incurred prior to the current fiscal year. The amount incurred in the current fiscal year is accounted for as an expense in "Selling, general and administrative expenses" in the consolidated statement of profit or loss.

The incurred goodwill is primarily composed of expected future earning power. The goodwill is not deductible.

(3) Impact on Cash Flows of Business Combination

	Millions of yen
Cash and cash equivalents used for the acquisition	¥40,583
Cash and cash equivalents held by the company acquired on the date of acquisition	4,398
Purchase of investments in subsidiaries resulting in change in the scope of consolidation	¥36,186

(4) Impact on the Group's Result
Revenue of ¥8,380 million and profit of ¥800 million arising from Crown Bioscience International since the acquisition date, are included in the Group's Consolidated Statement of Profit or Loss. The impact on the Group's result in the current fiscal year would have been immaterial on the assumption that the business combination had been executed at the beginning of the term.

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)
Not Applicable

2) Acquisition of Non-controlling Interest

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)
Not Applicable

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)
Not Applicable

(9) Cash and Cash Equivalents

Cash and cash equivalents comprise cash, short-term deposits (not later than three months) and short-term investments (e.g. securities redeemable not later than three months from the date of acquisition).

Cash and cash equivalents on the indicated dates consisted of the following items.

The total amount of cash and cash equivalents corresponds to cash and cash equivalents at the end of the period in the consolidated statement of cash flows.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Cash and cash equivalents			
Cash and deposit	¥55,784	¥48,931	$449,606
Short-term investment	15,001	13,001	119,458
Total	¥70,785	¥61,931	$569,064

(10) Trade and Other Receivables

Trade and other receivables are classified as financial assets measured at amortized cost.

Trade and other receivables include the following items.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Trade receivables			
Notes and account receivable-trade	¥116,956	¥ 97,758	$ 898,268
Other receivables			
Account receivables-other	18,053	12,430	114,219
Other	271	317	2,919
Total	¥135,280	¥110,506	$1,015,404

(11) Other Financial Assets

1) Breakdown of Other Financial Assets

The breakdown of other financial assets is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Derivative asset	¥ 60	¥ 3	$ 24
Investments (equity financial assets)	55,005	39,955	367,134
Term deposits	4,485	3,297	30,292
Other	4,347	5,466	50,227
Total	¥63,896	¥48,721	$447,677
Current assets	5,002	4,064	37,347
Non-current assets	58,895	44,656	410,330
Total	¥63,896	¥48,721	$447,677

Derivative assets are classified as financial assets measured at fair value through profit or loss. Investments (equity financial assets) are classified as financial assets measured at fair value through other comprehensive income, or those through profit or loss. Time deposits are classified as financial assets measured at amortized cost.

2) Financial Assets Measured at Fair Value through Other Comprehensive Income

Major stocks classified as financial assets measured at fair value through other comprehensive income and their fair values are as follows:

	Millions of yen		Thousands of U.S. dollars
Name of Stock	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
BRIDGESTONE Corporation	¥20,656	¥6,576	$60,427
Optorun Co., Ltd.	4,941	5,941	54,593
Carbon, Inc.	3,509	5,775	53,061
Tosoh Corporation	2,717	1,456	13,381
OSAKA ORGANIC CHEMICAL INDUSTRY LTD.	762	1,051	9,661
Mitsubishi Chemical Holdings Corporation	1,249	1,030	9,467

Amounts of dividends received recognized related to financial assets measured at fair value through other comprehensive income are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Dividends received	¥1,409	¥1,139	$10,467

3) Derecognition of Financial Assets Measured at Fair Value through Other Comprehensive Income

The Group has derecognized certain financial assets measured at fair value through other comprehensive income by disposing of such assets for the purpose of improving the asset efficiency. Fair value and accumulated gains or losses (net of tax) recognized as other comprehensive income at the time of disposal in each fiscal year are as follows:

Millions of yen				Thousands of U.S. dollars	
Fiscal year ended March 31, 2019		Fiscal year ended March 31, 2020		Fiscal year ended March 31, 2020	
Fair Value	Accumulated gains or losses	Fair Value	Accumulated gains or losses	Fair Value	Accumulated gains or losses
¥1,656	¥629	¥15,449	¥7,338	$141,957	$67,427

For financial assets measured at fair value through other comprehensive income, accumulated gains or losses recognized as other comprehensive income are transferred to retained earnings when the assets are derecognized.

(12) Inventories

Inventories consist of the following items.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Finished goods and merchandise	¥ 78,707	¥ 73,823	$ 678,337
Work in process	3,665	3,613	33,197
Raw materials and supplies	34,674	35,404	325,317
Total	¥117,046	¥112,840	$1,036,850

The amount of valuation losses on inventories recognized as expenses was ¥835 million as of March 31, 2019 and ¥497 million ($4,565 thousand) as of March 31, 2020. The write-off amount is included in "cost of sales" in the consolidated statement of profit or loss. The amount included in cost of sales was ¥328,648 million as of March 31, 2019 and ¥308,487 million ($2,834,574 thousand) as of March 31, 2020.

(13) Notes on Disposal Groups Classified as Held for Sale and Discontinued Operations

The Group classifies as discontinued operations business segments that have been disposed of or are classified as held for sale.

1) Disposal Groups Classified as Held for Sale

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)
As part of JSR's business portfolio management efforts, JSR entered into an agreement with Musashi Seimitsu Industry Co., Ltd. (Musashi Seimitsu Industry), for the transfer of 80% shares of JM Energy Corporation (JM Energy), a consolidated subsidiary of JSR, in January, 2020. Upon completion of the share transfer, JSR will hold 20% of JM Energy's shares, and JM Energy will then become an equity-method affiliate of JSR. With the execution of the transfer, the assets and liabilities of JM Energy are classified as disposal groups classified as held for sale and the lithium-ion capacitor business is classified as discontinued operations from the fiscal year ended March 2020.

The following are the assets and liabilities related to disposal groups classified as held for sale.

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Assets associated with disposal groups classified as held for sale			
Cash and cash equivalents	¥—	¥1,176	$10,810
Trade and other receivables	—	216	1,980
Inventories	—	1,207	11,090
Other current assets	—	47	430
Property, plant and equipment	—	0	0
Total assets	¥—	¥2,646	$24,310
Liabilities associated with disposal groups classified as held for sale			
Trade and other payables	—	659	6,055
Income taxes payable	—	222	2,037
Other current liabilities	—	1,016	9,332
Retirement benefit liability	—	254	2,332
Deferred tax liabilities	—	496	4,555
Total liabilities	¥—	¥2,646	$24,310

2) Discontinued Operations

(i) Profit or Loss from Discontinued Operations
The following are the profit or loss from discontinued operations.

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Revenue	¥ 1,392	¥ 590	$ 5,424
Cost of sales and expenses	(3,623)	(3,798)	(34,901)
Loss before tax from discontinued operations	(2,232)	(3,208)	(29,477)
Income tax expenses	394	3,460	31,791
Profit (loss) from discontinued operations	¥(1,837)	¥ 252	$ 2,314

(ii) Cash Flows Arising from Discontinued Operations
The following are cash flows from discontinued operations.

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Cash flows from operating activities	¥(1,091)	¥(1,278)	$(11,747)
Cash flows from investing activities	(113)	(517)	(4,754)
Cash flows from financing activities	1,241	2,858	26,261
Total	¥ 37	¥ 1,062	$ 9,761

(14) Other Assets

The breakdown of other assets is as shown below.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Other current assets			
Excise tax receivable	¥ 6,650	¥ 5,837	$ 53,635
Income taxes receivable	566	1,569	14,413
Prepaid expenses	1,446	1,921	17,651
Other	2,208	2,160	19,849
Total	¥10,870	¥11,487	$105,547
Other non-current assets			
Long-term prepaid expenses	472	195	1,793
Other	1,833	2,274	20,895
Total	¥ 2,305	¥ 2,469	$ 22,687

(15) Property, Plant and Equipment

Changes in carrying amounts and the balance of acquisition costs and accumulated depreciation of property, plant and equipment are as follows. For information on impairment losses, see "(18) Impairment of Non-financial Assets."

Changes in Carrying Amounts

	Millions of yen						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
April 1, 2018	¥38,512	¥ 59,463	¥ 9,095	¥15,153	¥ 37,412	¥ 199	¥159,834
Acquisition	525	2,194	1,090	102	30,198	(182)	33,927
Changes by business combination	6,403	4,616	701	2,171	924	—	14,816
Depreciation	(3,717)	(11,552)	(3,899)	—	—	—	(19,167)
Impairment loss	(46)	(117)	(101)	(163)	(2)	—	(430)
Sales and disposals	(187)	(492)	(130)	(32)	0	—	(840)
Transfer	6,115	13,502	4,342	(3)	(23,956)	—	—
Exchange differences of foreign operations	(2)	574	(47)	13	(1,423)	5	(879)
Other	(309)	1,508	(23)	—	(4,980)	—	(3,804)
March 31, 2019	¥47,295	¥ 69,697	¥11,029	¥17,240	¥ 38,173	¥ 23	¥183,457
Adjustment due to adoption of IFRS 16	11,965	227	12	1,607	—	—	13,810
April 1, 2019	59,260	69,924	11,041	18,847	38,173	23	197,268
Acquisition	4,587	5,458	813	1,997	35,753	143	48,750
Depreciation	(6,585)	(12,559)	(4,196)	(253)	—	—	(23,593)
Impairment loss	(104)	(1,563)	(93)	(1)	(37)	—	(1,797)
Sales and disposals	(424)	(788)	(72)	(12)	(159)	—	(1,454)
Transfer	4,772	11,978	4,604	0	(21,337)	(18)	—
Exchange differences of foreign operations	(816)	(1,342)	(96)	(31)	(1,300)	0	(3,584)
Other	(210)	656	(3)	(271)	(95)	(1)	75
March 31, 2020	¥60,481	¥ 71,763	¥11,999	¥20,275	¥ 50,999	¥ 147	¥215,664

	Thousands of U.S. dollars						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
March 31, 2019	$434,577	$ 640,421	$101,343	$158,412	$ 350,761	$ 210	$1,685,725
Adjustment due to adoption of IFRS 16	109,945	2,083	106	14,765	—	—	126,899
April 1, 2019	544,522	642,504	101,450	173,178	350,761	210	1,812,624
Acquisition	42,149	50,149	7,470	18,346	328,522	1,314	447,951
Depreciation	(60,506)	(115,404)	(38,554)	(2,328)	—	—	(216,792)
Impairment loss	(955)	(14,361)	(851)	(8)	(337)	—	(16,513)
Sales and disposals	(3,895)	(7,237)	(660)	(112)	(1,459)	—	(13,364)
Transfer	43,850	110,059	42,306	0	(196,054)	(161)	—
Exchange differences of foreign operations	(7,494)	(12,327)	(882)	(280)	(11,949)	(3)	(32,936)
Other	(1,932)	6,024	(24)	(2,491)	(873)	(12)	691
March 31, 2020	$555,739	$ 659,406	$110,256	$186,303	$ 468,610	$1,347	$1,981,661

Acquisition Cost

	Millions of yen						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
March 31, 2019	¥141,647	¥356,983	¥65,906	¥17,240	¥38,173	¥156	¥620,105
March 31, 2020	¥162,002	¥364,873	¥68,381	¥21,779	¥50,999	¥147	¥668,201

	Thousands of U.S. dollars						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
March 31, 2020	$1,488,759	$3,352,690	$628,329	$200,121	$468,610	$1,347	$6,139,857

Accumulated Depreciation and Impairment

	Millions of yen						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
March 31, 2019	¥ 94,352	¥287,286	¥54,877	¥ —	¥—	¥133	¥436,648
March 31, 2020	¥101,541	¥293,110	¥56,382	¥1,504	¥—	¥ —	¥452,536

	Thousands of U.S. dollars						
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Construction in progress	Other	Total
March 31, 2020	$933,020	$2,693,283	$518,074	$13,818	$—	$—	$4,158,195

(Notes) 1. Depreciation expenses of property, plant and equipment are recorded as "inventories" in the consolidated statement of financial position, or "cost of sales", "selling, general and administrative expenses" and "profit (loss) from discontinued operations" in the consolidated statement of profit or loss.
2. Impairment loss is recorded as "other operating expenses" and "Profit (loss) from discontinued operations" in the consolidated statement of profit or loss.
3. "Other" in the changes of carrying amounts includes transfer to/from "inventories" in the consolidated statement of financial position, or "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of profit or loss.
4. Amounts of property, plant and equipment pledged as collateral for liabilities are stated in "(21) Borrowings and Other Financial Liabilities."
5. Right-of-use asset included in carrying amounts of property, plant and equipment is stated in "(16) Lease."

(16) Lease

The Group leases Offices, Production equipment, Company cars, Land and Other assets as lessee. Certain lease contracts include extension option. No significant restrictions are imposed by lease contracts, such as restrictions regarding additional borrowings or leases.

1) Right-of-Use Asset

Net increase in right-of-use asset, depreciation and carrying amount in the fiscal year ended March 31, 2020 are as follows:

	Millions of yen				
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Total
Net increase	¥ 3,616	¥3,133	¥ 37	¥ 931	¥ 7,718
Depreciation	(2,734)	(704)	(37)	(253)	(3,728)
Carrying amount	12,710	3,944	33	2,278	18,965

	Thousands of U.S. dollars				
	Buildings and structures	Machinery and vehicles	Tools, fixtures and fittings	Land	Total
Net increase	$ 33,225	$28,790	$ 344	$ 8,557	$ 70,916
Depreciation	(25,122)	(6,468)	(337)	(2,328)	(34,256)
Carrying amount	116,786	36,239	307	20,929	174,260

2) Finance Costs Related to Lease

Finance costs related to leases in the fiscal year ended March 31, 2020 are as follows:

	Millions of yen	Thousands of U.S. dollars
Finance costs related to leases	¥ 615	$ 5,655
Expenses relating to short-term leases	340	3,128
Expenditures relating to leases of low-value assets	672	6,176
Variable lease payments	67	616
The amount of cash outflow related to leases	3,899	35,825

For the information on Maturity analysis for lease liabilities, see "(34) Financial Instruments, 2) Financial Risks, (iii) Liquidity Risks."

(17) Goodwill and Other Intangible Assets

Changes in carrying amounts and the balance of acquisition costs and accumulated amortization of goodwill and other intangible assets are as follows. For information of impairment losses, see "(18) Impairment of Non-financial Assets."

Changes in Carrying Amounts

	Millions of yen			
		Other intangible asset		
	Goodwill	Software	Other	Total
April 1, 2018	¥19,389	¥ 2,734	¥ 7,670	¥10,403
Acquisition	—	1,773	339	2,112
Changes by business combination	38,549	444	2,898	3,342
Amortization	—	(1,138)	(1,536)	(2,675)
Impairment loss	—	(9)	—	(9)
Sales and disposals	—	(11)	(59)	(71)
Transfer to other property, plant and equipment	—	(153)	153	—
Exchange differences of foreign operations	1,128	18	132	150
Other	—	480	471	951
March 31, 2019	¥59,066	¥ 4,137	¥10,068	¥14,205
Acquisition	—	4,134	306	4,440
Amortization	—	(1,144)	(1,621)	(2,765)
Impairment loss	—	(3)	—	(3)
Sales and disposals	—	(116)	(267)	(382)
Transfer to other property, plant and equipment	—	(214)	214	—
Exchange differences of foreign operations	(784)	(34)	(194)	(228)
Other	—	461	165	626
March 31, 2020	¥58,283	¥ 7,220	¥ 8,671	¥15,891

	Thousands of U.S. dollars			
		Other intangible asset		
	Goodwill	Software	Other	Total
March 31, 2019	$542,740	$ 38,010	$ 92,510	$130,520
Acquisition	—	37,985	2,811	40,796
Amortization	—	(10,513)	(14,894)	(25,407)
Impairment loss	—	(32)	—	(32)
Sales and disposals	—	(1,063)	(2,451)	(3,514)
Transfer to other property, plant and equipment	—	(1,971)	1,971	—
Exchange differences of foreign operations	(7,200)	(314)	(1,783)	(2,096)
Other	—	4,237	1,512	5,749
March 31, 2020	$535,540	$ 66,340	$ 79,676	$146,015

Acquisition Cost

	Millions of yen			
		Other intangible asset		
	Goodwill	Software	Other	Total
March 31, 2019	¥59,066	¥21,045	¥24,315	¥45,359
March 31, 2020	¥58,283	¥24,919	¥26,708	¥51,627

	Thousands of U.S. dollars			
		Other intangible asset		
	Goodwill	Software	Other	Total
March 31, 2020	$535,540	$228,969	$245,414	$474,383

Accumulated Amortization and Impairment

	Millions of yen			
		Other intangible asset		
	Goodwill	Software	Other	Total
March 31, 2019	¥—	¥16,908	¥14,247	¥31,155
March 31, 2020	¥—	¥17,699	¥18,037	¥35,736

	Thousands of U.S. dollars			
		Other intangible asset		
	Goodwill	Software	Other	Total
March 31, 2020	$—	$162,629	$165,738	$328,368

(Notes) 1. Amortization expenses of other intangible assets are recorded as "cost of sales", "selling, general and administrative expenses" and "profit (loss) from discontinued operations" in the consolidated statement of profit or loss.
2. "Other" in the changes of carrying amounts includes transfer to/from "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of profit or loss.

(18) Impairment on Non-Financial Assets

1) Impairment Losses on Property, Plant and Equipment and Intangible Assets Other Than Goodwill

Impairment losses in the fiscal years ended March 31, 2019 and 2020 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Property, plant and equipment			
Buildings and structures	¥—	¥ 92	$ 847
Machinery and vehicles	—	1,355	12,447
Tools, fixtures and fittings	—	63	582
Subtotal	—	1,510	13,876
Other intangible asset			
Software	—	3	32
Total	¥—	¥1,514	$13,908

The impairment losses were recognized in the fiscal year ended March 31, 2020 due to the decrease in future profitability regarding a part of non-current assets in production equipment for general-purpose synthetic rubber products in the Elastomers business and a part of fixed assets in the Life Sciences business. The carrying amounts of the above assets has been reduced to the recoverable amount, and impairment losses of ¥1,454 million ($13,356 thousand) and ¥60 million ($552 thousand), respectively, totaling ¥1,514 million ($13,908 thousand) were recorded in "Other operating expenses" in the consolidated statement of profit or loss. The recoverable amount is measured by the value in use, and the value in use is calculated as zero.

The impairment losses regarding fixed assets of the lithium-ion capacitor business in the previous fiscal year (¥438 million) and the current fiscal year (¥287 million, $2,637 thousand) were reclassified as profit (loss) from discontinued operations.

2) Impairment Test on Goodwill

Carrying amount of goodwill allocated to cash-generating units (or groups of cash-generating units) is as follows:

		Millions of yen		Thousands of U.S. dollars
Segment	Cash-generating units (groups of cash-generating units)	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Plastics business	Plastics	¥ 2,598	¥ 2,598	$ 23,876
Life Sciences business	In-vitro Diagnostics and Research Reagents	3,641	3,641	33,457
	Contract Development and Manufacturing for Biomedicine	5,226	5,124	47,086
	Contract of the Services for Development and Generation of Cell-lines	9,133	9,184	84,390
	Drug Discovery and Development Services	37,637	36,904	339,105
	Other	830	830	7,628
Total		¥59,066	¥58,283	$535,540

Of the above goodwill, major goodwill was tested for impairment as follows. The recoverable amount was measured as the higher of the value in use or the fair value less costs of disposal.

Measured at the Value in Use

Cash-generating units (groups of cash-generating units)	Continued growth rate	Pre-tax discount rate	Term to estimate cash flows
Plastics	0.0%	11.3%	5 years
In-vitro Diagnostics and Research Reagents	1.0%	10.1%	5 years
Contract Development and Manufacturing for Biomedicine	2.0%	13.6%	5 years
Contract of the Services for Development and Generation of Cell-lines	2.0%	12.6%	5 years
Drug Discovery and Development Services	2.0%	13.0%	5 years

The value in use was calculated by discounting the estimated cash flows to the present value based on the plan reflecting past experience and external information and approved by management.

As for those cash-generating units, the Group considers that the carring amount will not exceed the recoverable amount even if there is a change in the key assumptions used in the estimation of the recoverable amounts within a reasonable range.

(19) Investments Accounted for Using the Equity Method

1) Investments in Associates

There are no investments in significant associates.

Carrying amount of investments in associates that are not individually significant is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Carrying amount	¥3,628	¥5,955	$54,721

The Group's share of comprehensive income of associates that are not individually significant is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Share of profit (loss)	¥442	¥287	$2,635
Share of other comprehensive income	(39)	(88)	(807)
Share of total comprehensive income	¥403	¥199	$1,828

2) Investments in Joint Ventures

There are no investments in significant joint ventures.

Carrying amount of investments in joint ventures that are not individually significant is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Carrying amount	¥20,641	¥19,429	$178,530

The Group's share of comprehensive income of joint ventures that are not individually significant is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Share of profit (loss)	¥ 91	¥ (223)	$(2,048)
Share of other comprehensive income	(1,169)	(847)	(7,785)
Share of total comprehensive income	¥(1,078)	¥(1,070)	$(9,833)

(20) Income Taxes

1) Deferred Tax Assets and Liabilities

(i) Deferred Tax Assets and Liabilities Recognized

The breakdown of deferred tax assets and liabilities by major causes for occurrence in each fiscal year is as follows:

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

	Millions of yen				
	April 1, 2018	Recognized through profit (loss)	Recognized through other comprehensive income	Other	March 31, 2019
Deferred Tax Assets					
Inventories	¥ 1,153	¥ (20)	¥ —	¥ —	¥ 1,133
Accrued bonuses	1,574	(18)	—	154	1,710
Non-current assets	1,898	58	—	—	1,956
Retirement benefit liability	4,205	426	(24)	173	4,780
Unused tax losses	390	(97)	—	132	425
Other	2,751	(50)	181	679	3,562
Total	¥ 11,972	¥ 299	¥ 157	¥1,138	¥ 13,566
Deferred Tax Liabilities					
Non-current assets	(1,513)	(111)	—	—	(1,625)
Financial asset measured at fair value through other comprehensive income	(11,097)	—	2,334	—	(8,763)
Other	(1,764)	243	0	(471)	(1,992)
Total	¥(14,374)	¥ 132	¥2,334	¥ (471)	¥(12,380)

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Millions of yen				
	April 1, 2019	Recognized through profit (loss)	Recognized through other comprehensive income	Other	March 31, 2020
Deferred Tax Assets					
Inventories	¥ 1,133	¥ (33)	¥ —	¥ —	¥ 1,100
Accrued bonuses	1,710	198	—	—	1,908
Non-current assets	1,956	(632)	—	—	1,324
Retirement benefit liability	4,780	(133)	(292)	—	4,355
Unused tax losses	425	276	—	—	701
Other	3,562	2,094	507	(300)	5,863
Total	¥ 13,566	¥1,770	¥ 215	¥ (300)	¥15,252
Deferred Tax Liabilities					
Non-current assets	(1,625)	73	—	—	(1,551)
Financial asset measured at fair value through other comprehensive income	(8,763)	—	657	3,176	(4,931)
Other	(1,992)	(586)	—	—	(2,578)
Total	¥(12,380)	¥ (512)	¥ 657	¥3,176	¥ (9,060)

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Thousands of U.S. dollars				
	April 1, 2019	Recognized through profit (loss)	Recognized through other comprehensive income	Other	March 31, 2020
Deferred Tax Assets					
Inventories	$ 10,412	$ (303)	$ —	$ —	$ 10,109
Accrued bonuses	15,714	1,817	—	—	17,531
Non-current assets	17,975	(5,807)	—	—	12,169
Retirement benefit liability	43,921	(1,225)	(2,679)	—	40,016
Unused tax losses	3,903	3,173	—	—	7,076
Other	32,729	18,609	4,659	(2,754)	53,242
Total	$ 124,654	$16,264	$1,979	$ (2,754)	$140,144
Deferred Tax Liabilities					
Non-current assets	(14,929)	674	—	—	(14,255)
Financial asset measured at fair value through other comprehensive income	(80,523)	—	6,040	29,178	(45,306)
Other	(18,303)	(5,383)	—	—	(23,687)
Total	$(113,755)	$ (4,709)	$6,040	$29,178	$ (83,247)

(ii) Temporary Differences, etc. for Which Deferred Tax Assets Have Not Been Recognized

The Group assesses the recoverability of deferred tax assets in each period and recognizes deferred tax assets taking into account significant uncertainty on the recoverability of its deferred tax assets.

Tax losses carried forward and deductible temporary differences for which deferred tax assets have not been recognized are as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Unused tax losses	¥ 8,211	¥ 9,881	$ 90,790
Deductible temporary differences	3,086	2,531	23,257
Total	¥11,297	¥12,412	$114,047

Expiration schedule of tax losses carried forward for which no deferred tax asset is recognized is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Not later than one year	¥ 88	¥ 276	$ 2,534
Later than one year and not later than five years	4,017	2,015	18,519
Later than five years	4,107	7,590	69,737
Total	¥8,211	¥9,881	$90,790

The amount of taxable temporary differences pertaining to investments in subsidiaries, etc. for which deferred tax liabilities have not been recognized was ¥26,388 million as of March 31, 2019 and ¥34,309 million ($315,253 thousand) as of March 31, 2020. For these temporary differences, deferred tax liabilities have not been recognized because the Group can control the timing of the reversal of the temporary differences and it is probable that the temporary differences will not reverse in the foreseeable future.

2) Income Tax Expense

The breakdown of income tax expense is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Current tax expenses	¥11,021	¥ 4,656	$ 42,787
Deferred tax expenses	(431)	(1,257)	(11,554)
Total	¥10,591	¥ 3,399	$ 31,232
Continuing operations	10,985	6,859	63,023
Discontinued operations	(394)	(3,460)	(31,791)

Deferred tax expenses include tax losses of ¥243 million and ¥720 million ($6,620 thousand), which had not been recognized, in the previous consolidated fiscal year and the current consolidated fiscal year respectively. Also, the amounts of benefits arising from temporary differences in past periods are included in the previous consolidated fiscal year and the current consolidated fiscal year, which were ¥232 million and ¥164 million ($1,506 thousand), respectively.

Differences between statutory income tax rates and average effective tax rates can be explained by the following factors.

	%	
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020
Statutory income tax rate	30.6	30.6
Tax credit on experiment and research expenses	(3.9)	(2.9)
Differences in tax rates applied to foreign operations	(2.2)	(3.8)
Special deduction for reconstruction district	(0.6)	(0.3)
Share of loss (profit) of entities accounted for using the equity method	(0.4)	(0.1)
Valuation allowance	0.8	(1.0)
Other	(0.4)	(1.5)
Average effective tax rate	24.0	21.0

(21) Borrowings and Other Financial Liabilities

1) Financial Liabilities

Borrowings and other financial liabilities consisted of the following:

	Millions of yen		Thousands of U.S. dollars	%	
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020	Average interest rates	Payment Due
Current borrowings	¥21,695	¥ 23,559	$216,479	0.85%	—
Current portion of non-current borrowings	11,824	6,483	59,571	2.06%	—
Non-current borrowings	50,777	52,684	484,093	1.91%	2021–26
Current lease liabilities	515	3,094	28,428	—	—
Non-current lease liabilities	1,216	15,672	144,007	—	2021–45
Derivative liabilities	17	111	1,017	—	—
Other	460	460	4,223	—	—
Total	¥86,503	¥102,063	$937,817	—	—
Current liabilities	34,051	33,181	304,886	—	—
Non-current liabilities	52,452	68,882	632,931	—	—
Total	¥86,503	¥102,063	$937,817	—	—

Borrowings are classified as financial liabilities measured at cost. Derivative liabilities are classified as financial liabilities measured at fair value through profit or loss.

No restrictive financial covenants have been attached to the Group’s borrowings.

With the application of IFRS 16, lease obligations included in other financial liabilities have been reclassified to lease liabilities from the current fiscal year.

Payment schedules of non-current borrowings are as follows:

	Later than one year and not later than two years	Later than two years and not later than three years	Later than three years and not later than four years	Later than four years and not later than five years	Later than five years	Total
Millions of yen	¥ 13,431	¥ 7,700	¥ 11,635	¥ 19,570	¥ 348	¥ 52,684
Thousands of U.S. dollars	$123,415	$70,748	$106,906	$179,826	$3,197	$484,093

2) Pledged Assets

The Company and its consolidated subsidiaries have pledged collateral under standard customary terms in standard borrowing contracts.

Pledged assets are as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Cash and cash equivalents	¥ 590	¥ 7	$ 64
Trade and other current receivables	8,283	—	—
Current inventories	3,656	—	—
Other current financial assets	44	—	—
Other current non-financial assets	279	—	—
Property, plant and equipment	20,319	14,040	129,009
Intangible assets	671	—	—
Non-current assets	1,099	—	—
Total	¥34,940	¥14,047	$129,074

Corresponding liabilities are as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Current borrowings and current portion of non-current borrowings	¥7,037	¥29	$267
Other current liabilities	—	2	18
Non-current portion of non-current borrowings	2	2	15
Total	¥7,039	¥33	$301

3) Reconciliation of Liabilities Arising from Financing Activities

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

	Millions of yen							
			Non-cash items					
	As of April 1, 2018	Cash flow	Business Combination	Acquisition	Exchange differences	Transfer between non-current and current	Other	As of March 31, 2019
Borrowings (non-current)	¥53,456	¥ 8,641	¥ 828	¥—	¥ (586)	¥(11,610)	¥48	¥50,777
Borrowings (current)	25,947	(9,323)	3,450	—	1,831	11,610	3	33,519
Lease liabilities	2,196	(551)	0	63	23	—	(1)	1,731
Total	¥81,600	¥(1,233)	¥4,278	¥63	¥1,268	¥ —	¥51	¥86,027

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Millions of yen								
					Non-cash items				
	As of March 31, 2019	Adjustment due to adoption of IFRS 16	As of April 1, 2019	Cash flow	Lease	Exchange differences	Transfer between non-current and current	Other	As of March 31, 2020
Borrowings (non-current)	¥50,777	¥ —	¥50,777	¥ 5,568	¥ —	¥(1,476)	¥(2,184)	¥—	¥ 52,684
Borrowings (current)	33,519	—	33,519	(5,014)	—	(648)	2,184	1	30,043
Lease liabilities	1,731	13,678	15,408	(3,025)	6,721	(339)	—	—	18,766
Total	¥86,027	¥13,678	¥99,704	¥(2,470)	¥6,721	¥(2,464)	¥ —	¥ 1	¥101,492

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Thousands of U.S. dollars								
					Non-cash items				
	As of March 31, 2019	Adjustment due to adoption of IFRS 16	As of April 1, 2019	Cash flow	Lease	Exchange differences	Transfer between non-current and current	Other	As of March 31, 2020
Borrowings (non-current)	$466,572	$ —	$466,572	$ 51,158	$ —	$(13,567)	$(20,071)	$—	$484,093
Borrowings (current)	307,996	—	307,996	(46,067)	—	(5,958)	20,071	9	276,050
Lease liabilities	15,903	125,678	141,581	(27,791)	61,761	(3,115)	—	—	172,435
Total	$790,470	$125,678	$916,148	$(22,700)	$61,761	$(22,640)	$ —	$ 9	$932,578

(22) Trade and Other Payables

Trade and other payables are classified as financial liabilities measured at amortized cost. The breakdown is shown below.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Trade Payable			
Notes and accounts payable-trade	¥ 89,240	¥61,156	$561,945
Other Payable			
Accounts payable-other, and accrued expenses	28,134	31,178	286,488
Other	680	504	4,634
Total	¥118,053	¥92,839	$853,067

(23) Employee Benefits

1) Outline of Post-Employment Benefit Plans

The Company and certain consolidated subsidiaries have adopted funded and unfunded defined benefit plans and defined contribution plans, and virtually all employees of these companies are covered by these plans. In Japan, as defined benefit plans under the Defined-benefit Corporate Pension Act, defined benefit corporate pension plans and lump-sum retirement benefit plans have been operational. The amount of these benefits is calculated based on certain points, etc. given in accordance with service years and contribution. These pension plans are exposed to general investment risk, interest rate risk, inflation risk and others.

Funded defined benefit plans have been operated by a corporate pension fund that is legally separated from the Group in accordance with laws and regulations including Defined-Benefit Corporate Pension Act. The board of the corporate pension fund and the pension-managing trustee are required by laws and regulations to act in the best interests of plan participants, and are responsible for managing plan assets based on predetermined policies.

The management of plan assets is conducted based on basic asset allocation aimed to ensure stable revenue in the medium to long term within the limits of tolerable risks, in order to ensure the payment of pension benefits, etc. at present and in the future. The basic asset allocation is periodically reviewed in order to respond to changes in the market environment and the funding position from initial assumptions made.

2) Defined Benefit Plans

(i) Reconciliation of Defined Benefit Plan Obligations and Plan Assets

The relationship between defined benefit plan obligations and plan assets, and net defined benefit liabilities and assets recorded in the consolidated statement of financial position is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Present value of funded retirement benefit obligation	¥ 39,636	¥ 38,349	$ 352,372
Fair value of plan assets	(37,772)	(37,472)	(344,315)
Subtotal	1,864	877	8,057
Present value of unfunded retirement benefit obligation	12,503	12,779	117,422
Total Net liability (asset) for retirement benefit	¥ 14,367	¥ 13,656	$ 125,480
Amounts on consolidated statement of financial position			
Retirement benefit liability	15,870	16,216	148,999
Retirement benefit asset	(1,503)	(2,560)	(23,519)
Total Net liability (asset) for retirement benefit	¥ 14,367	¥ 13,656	$ 125,480

(ii) Reconciliation of Present Value of Defined Benefit Plan Obligations

Increase or decrease in the present value of defined benefit plan obligations is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Balance of present value of retirement benefit obligation at the beginning of the fiscal year	¥49,724	¥52,139	$479,089
Service cost	2,382	2,409	22,139
Interest expense	194	158	1,452
Remeasurement			
Actuarial gains (losses) arising from changes in demographic assumptions	(259)	(207)	(1,903)
Actuarial gains (losses) arising from changes in financial assumptions	444	(827)	(7,597)
Benefits paid	(2,600)	(2,333)	(21,438)
Other	2,254	(212)	(1,948)
Balance of present value of retirement benefit obligation at the end of the fiscal year	¥52,139	¥51,128	$469,795

The weighted average duration of defined benefit plan obligations was 13.7 years in the fiscal year ended March 31, 2019 and 13.7 years in the fiscal year ended March 31, 2020.

(iii) Reconciliation of Fair Value of Plan Assets

Increase or decrease in the fair value of plan assets is as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Balance of fair value of plan assets at the beginning of the fiscal year	¥36,227	¥37,772	$347,075
Interest revenue	177	117	1,076
Remeasurement			
Return on plan assets	264	(84)	(772)
Contributions paid by the employer	1,620	1,677	15,408
Benefits paid	(2,027)	(1,816)	(16,689)
Other	1,512	(194)	(1,783)
Balance of fair value of plan assets at the end of the fiscal year	¥37,772	¥37,472	$344,315

Contributions to defined benefit plans, are determined by performing an actuarial review periodically so that balanced budgets can be maintained in the future. In the actuarial review, the Group reviews assumptions related to the determination of contributions (such as expected rate of interest, expected mortality rate and expected withdrawal rate) and verifies the appropriateness of contributions determined.

The Group will make contributions of ¥1,955 million ($17,968 thousand) in the fiscal year ending March 31, 2021.

(iv) Items of Plan Assets

Plan assets consisted of the following items.

	Millions of yen					
	As of March 31, 2019			As of March 31, 2020		
	Assets for which active market prices are available	Assets for which active market prices are not available	Total	Assets for which active market prices are available	Assets for which active market prices are not available	Total
Cash and cash equivalents	¥ 4,041	¥ —	¥ 4,041	$ 3,861	$ —	$ 3,861
Equity instruments						
Domestic equity securities	1,313	—	1,313	1,149	—	1,149
Foreign equity securities	3,540	—	3,540	3,316	—	3,316
Debt instruments						
Domestic bonds	9,279	—	9,279	9,197	—	9,197
Foreign bonds	10,249	—	10,249	10,657	—	10,657
General accounts of life insurance	—	650	650	—	660	660
Alternative investments*	—	8,700	8,700	—	8,632	8,632
Total	¥28,422	¥9,350	¥37,772	$28,180	$9,292	$37,472

*Alternative investments include hedge funds.

	Thousands of U.S. dollars		
	As of March 31, 2020		
	Assets for which active market prices are available	Assets for which active market prices are not available	Total
Cash and cash equivalents	$ 35,478	$ —	$ 35,478
Equity instruments			
Domestic equity securities	10,554	—	10,554
Foreign equity securities	30,472	—	30,472
Debt instruments			
Domestic bonds	84,506	—	84,506
Foreign bonds	97,926	—	97,926
General accounts of life insurance	—	6,061	6,061
Alternative investments*	—	79,318	79,318
Total	$258,936	$85,379	$344,315

*Alternative investments include hedge funds.

(v) Main Component Used for Actuarial Assumption

	%	
	As of March 31, 2019	As of March 31, 2020
Discount rates (weighted average)	0.36	0.51

(vi) Sensitivity Analysis

In the fiscal year ended March 31, 2020, a 0.5% increase (decrease) in the discount rate used in actuarial calculation would have resulted in a decrease (increase) in the present value of defined benefit plan obligations by ¥2,832 million ($26,018 thousand). This provisional calculation assumes that variables other than the assumptions used in the calculation are constant. In reality, since individual assumptions are affected by changes in economic indicators and conditions at the same time, the assumptions are expected to change independently or in a correlated fashion, and the actual effects of such changes on defined benefit plan obligations may differ from the expected effects.

3) Defined Contribution Plans

The amount recognized as expenses in relation to defined contribution plans was ¥1,025 million in the fiscal year ended March 31, 2019 and ¥1,273 million ($11,701 thousand) in the fiscal year ended March 31, 2020.

4) Employee Benefits Expense

The total amount of employee benefits expense included in "cost of sales" and "selling, general and administrative expenses" in the consolidated statement of profit or loss in the fiscal year ended March 31, 2019 and the fiscal year ended March 31, 2020 was ¥3,377 million and ¥3,724 million ($34,216 thousand), respectively.

(24) Other Liabilities

Other liabilities include the following items.

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Other current liabilities			
Unearned revenue	¥ 34	¥ 52	$ 480
Contract liabilities	5,969	8,489	78,006
Accrued bonuses	5,353	5,188	47,667
Accrued consumption taxes	752	860	7,906
Other	2,644	3,386	31,114
Total	¥14,752	¥17,976	$165,172
Other non-current assets			
Provision for environmental measures	929	804	7,383
Other	1,804	2,864	26,312
Total	¥ 2,733	¥ 3,667	$ 33,695

(25) Equity and Other Equity Items

1) Share Capital and Capital Surplus

Capital surplus consists of legal capital surplus and other capital surplus.

The Companies Act of Japan (hereinafter the "Companies Act") stipulates that at least half of the payment or contribution at the share issue shall be credited to share capital, and the remaining amount may be recorded as legal capital surplus included in capital surplus. In addition, under the Companies Act, legal capital surplus may be credited to share capital by resolution of the general meeting of shareholders.

Increase or decrease in the number of authorized shares and the number of issued shares are as follows:

	Number of shares authorized	Number of shares issued
As of April 1, 2018	696,061,000	226,126,145
Increase/Decrease	—	—
As of March 31, 2019	696,061,000	226,126,145
Increase/Decrease	—	—
As of March 31, 2020	696,061,000	226,126,145

(Note) All shares issued by the Company are ordinary shares with no rights limitations and without par value and restricted shares. Issued shares are fully paid.

2) Treasury Shares

The Companies Act stipulates that entities may determine the number of shares to be acquired, the total amount of acquisition price, etc. and acquire treasury shares by resolution of the general meeting of shareholders, to the extent of the distributable amount. Moreover, in the case of acquisition through market transactions or a takeover bid, treasury shares may be acquired by resolution of the Board of Directors within the requirements prescribed in the Companies Act in accordance with the provisions of the Articles of Incorporation.

Increase or decrease in the number of treasury shares is as follows:

	Number of shares
As of April 1, 2018	3,534,779
Increase/Decrease	2,160,170
As of March 31, 2019	5,694,949
Increase/Decrease	5,717,359
As of March 31, 2020	11,412,308

(Note) Increase or decrease during the period is mainly due to the purchase of shares resolved at the Board of Directors.

3) Retained Earnings

Retained earnings consist of legal retained earnings and other retained earnings.

The Companies Act stipulates that one-tenth of the amount paid as dividends of surplus shall be reserved as legal capital surplus or legal retained earnings until the sum of legal capital surplus included in capital surplus and legal retained earnings included in retained earnings reaches one quarter of share capital. Accumulated legal retained earnings may be appropriated to cover a deficit. It is specified that legal retained earnings may be reversed by resolution of the general meeting of shareholders.

4) Other Components of Equity

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

	Millions of yen						
	Net change in financial assets measured at fair value through other comprehensive income	Net change in fair value on cash flow hedges	Exchange differences on translation of foreign operations	Remeasure-ments of defined benefit plans	Restricted Shares	Other	Total
As of April 1, 2018	¥25,064	¥ 70	¥ 422	¥ —	¥(25)	¥(460)	¥25,071
Other comprehensive income	(4,754)	(40)	(770)	60	—	—	(5,505)
Total comprehensive income	(4,754)	(40)	(770)	60	—	—	(5,505)
Share-based remuneration plan	—	—	—	—	(1)	—	(1)
Transfer from other components of equity to retained earnings	(629)	—	—	(60)	—	—	(689)
Changes by business combination	(173)	—	54	—	—	—	(119)
Other movements	(0)	—	1	—	—	—	1
Total transactions with owners, etc.	(802)	—	55	(60)	(1)	—	(808)
As of March 31, 2019	¥19,508	¥ 30	¥(293)	¥ —	¥(26)	¥(460)	¥18,758

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Millions of yen						
	Net change in financial assets measured at fair value through other comprehensive income	Net change in fair value on cash flow hedges	Exchange differences on translation of foreign operations	Remeasure-ments of defined benefit plans	Restricted Shares	Other	Total
As of April 1, 2019	¥19,508	¥ 30	¥ (293)	¥ —	¥(26)	¥(460)	¥18,758
Other comprehensive income	(1,320)	(63)	(4,364)	630	—	—	(5,118)
Total comprehensive income	(1,320)	(63)	(4,364)	630	—	—	(5,118)
Share-based remuneration plan	—	—	—	—	(47)	—	(47)
Transfer from other components of equity to retained earnings	(7,338)	—	—	(630)	—	—	(7,968)
Total transactions with owners, etc.	(7,338)	—	—	(630)	(47)	—	(8,014)
As of March 31, 2020	¥10,849	¥(34)	¥(4,657)	¥ —	¥(73)	¥(460)	¥ 5,626

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Thousands of U.S. dollars						
	Net change in financial assets measured at fair value through other comprehensive income	Net change in fair value on cash flow hedges	Exchange differences on translation of foreign operations	Remeasure-ments of defined benefit plans	Restricted Shares	Other	Total
As of April 1, 2019	$179,248	$ 273	$ (2,695)	$ —	$(241)	$(4,223)	$172,362
Other comprehensive income	(12,132)	(583)	(40,096)	5,786	—	—	(47,026)
Total comprehensive income	(12,132)	(583)	(40,096)	5,786	—	—	(47,026)
Share-based remuneration plan	—	—	—	—	(429)	—	(429)
Transfer from other components of equity to retained earnings	(67,427)	—	—	(5,786)	—	—	(73,213)
Total transactions with owners, etc.	(67,427)	—	—	(5,786)	(429)	—	(73,642)
As of March 31, 2020	$ 99,689	$(310)	$(42,791)	$ —	$(671)	$(4,223)	$ 51,694

(a) Net Change in Financial Assets Measured at Fair Value through Other Comprehensive Income
It represents valuation differences on fair value of equity instruments measured at fair value through other comprehensive income.

(b) Net Change in Fair Value of Cash Flow Hedges
It represents change in profit or loss on valuation of derivatives as hedging instruments that were recorded in the statement of comprehensive income on and before the date of cessation of hedge accounting.

(c) Exchange Differences on Translation of Foreign Operations
They represent translation differences on foreign operations' financial statements.

(d) Remeasurements of Defined Benefit Liabilities (Assets)
Remeasurements of defined benefit liabilities (assets) are changes in actuarial differences, return on plan assets (excluding the amount included in interest revenue) and the effect of the asset ceiling (excluding the amount included in interest revenue). Actuarial differences are adjustments based on actual results related to defined benefit plan obligations (differences between actuarial assumptions at the beginning of the period and actual results) and the effect of changes in actuarial assumptions. These items are recognized in other comprehensive income when they arise, and immediately transferred from other components of equity to retained earnings.

(e) Restricted Shares
Under the restricted share-based remuneration plan, monetary remuneration to be used as contributed properties for restricted shares is provided. The amount equivalent to fair value of remuneration determined at the initial recognition is recorded in share capital, and recognized as the amount debited to other components of equity. Over the vesting period, other components of equity recognized as the debited amount are deducted at the time when remuneration cost is recognized.

Details of the restricted share-based remuneration plan are provided in the note "(33) Share-based remuneration."

(f) The Company has entered into an agreement with non-controlling shareholders that the Company purchases all interests held by the non-controlling shareholders under certain terms and conditions. With regard to the obligations to purchase these interests, the present value of the purchase amount has been recognized as financial liabilities, and the same amount has been reduced from other components of equity.

(26) Dividends

The amounts of dividends paid are as follows:

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

Resolution	Class of shares	Total amount of dividends	Dividends per share	Record date	Effective date of dividends	Source of dividends
Ordinary General Meeting of Shareholders on June 15, 2018	Ordinary Shares	¥5,565 million	¥25	March 31, 2018	June 18, 2018	Retained Earnings
Board of Directors Meeting on October 29, 2018	Ordinary Shares	¥6,610 million	¥30	September 30, 2018	November 28, 2018	Retained Earnings

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

Resolution	Class of shares	Total amount of dividends	Dividends per share	Record date	Effective date of dividends	Source of dividends
Ordinary General Meeting of Shareholders on June 18, 2019	Ordinary Shares	¥6,613 million ($60,764 thousand)	¥30 ($0.28)	March 31, 2019	June 19, 2019	Retained Earnings
Board of Directors Meeting on October 28, 2019	Ordinary Shares	¥6,441 million ($59,186 thousand)	¥30 ($0.28)	September 30, 2019	November 27, 2019	Retained Earnings

Dividends of which record dates belong to the current consolidated fiscal year and of which effective dates of dividends fall after the end of the current consolidated fiscal year are as follows:

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

Resolution	Class of shares	Total amount of dividends	Dividends per share	Record date	Effective date of dividends	Source of dividends
Ordinary General Meeting of Shareholders on June 18, 2019	Ordinary Shares	¥6,613 million	¥30	March 31, 2019	June 19, 2019	Retained Earnings

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

Resolution	Class of shares	Total amount of dividends	Dividends per share	Record date	Effective date of dividends	Source of dividends
Ordinary General Meeting of Shareholders on June 17, 2020	Ordinary Shares	¥6,441 million ($59,188 thousand)	¥30 ($0.28)	March 31, 2020	June 18, 2020	Retained Earnings

(27) Revenue

1) Disaggregation of Revenue

Regarding the revenue arising from contracts with the Group's customers, the breakdown of revenue into domestic and overseas and its relation to the reportable segments are as follows.

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

		Millions of yen		
		Domestic	Overseas	Total
Reporting Segments	Elastomers	¥118,016	¥ 82,720	¥200,736
	Plastics	60,840	44,606	105,446
	Digital Solutions	30,995	111,221	142,216
	Semiconductor Materials	17,056	59,044	76,100
	Display Materials	5,557	47,114	52,671
	Edge Computing Materials	8,382	5,063	13,445
	Life Sciences	9,038	34,834	43,872
Other		1,396	1,686	3,083
Total		¥220,286	¥275,0767	¥495,353
Adjustment		1	—	1
Amount Recorded in the Consolidated Financial Statements		¥220,287	¥ 275,067	¥495,354

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

		Millions of yen		
		Domestic	Overseas	Total
Reporting Segments	Elastomers	¥103,219	¥ 75,575	¥178,794
	Plastics	55,969	39,124	95,092
	Digital Solutions	27,853	116,953	144,805
	Semiconductor Materials	16,899	67,095	83,994
	Display Materials	5,350	43,638	48,988
	Edge Computing Materials	5,604	6,220	11,823
	Life Sciences	9,912	40,584	50,496
Other		1,286	1,493	2,779
Total		¥198,238	¥273,729	¥471,967
Adjustment		0	—	0
Amount Recorded in the Consolidated Financial Statements		¥198,238	¥273,729	¥471,967

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

		Thousands of U.S. dollars		
		Domestic	Overseas	Total
Reporting Segments	Elastomers	$ 948,443	$ 694,429	$1,642,872
	Plastics	514,275	359,495	873,770
	Digital Solutions	255,930	1,074,636	1,330,565
	Semiconductor Materials	155,277	616,511	771,788
	Display Materials	49,160	400,976	450,136
	Edge Computing Materials	51,492	57,149	108,641
	Life Sciences	91,075	372,912	463,987
Other		11,816	13,722	25,538
Total		$1,821,539	$2,515,194	$4,336,733
Adjustment		0	—	0
Amount Recorded in the Consolidated Financial Statements		$1,821,540	$2,515,194	$4,336,734

(1) Elastomers Business

In Elastomers business, the Group manufactures and sells general-purpose synthetic rubber products for automobile tires, functional special synthetic rubber for automobile components, thermoplastic elastomers for modifying plastics, synthetic rubber latex for coated paper, etc.

For the sales contracts on products and merchandise, the Group recognizes revenue upon delivery because the control of the products and merchandise is considered to be transferred to the customer and the performance obligation is satisfied by delivery.

(2) Plastics Business

In Plastics business, the Group manufactures and sells ABS and other resins for automobiles, office equipment, and amusement applications, etc.

For the sales contracts on products and merchandise, the Group recognizes revenue upon delivery because the control of the products and merchandise is considered to be transferred to the customer and the performance obligation is satisfied by delivery.

(3) Digital Solutions Business

In Digital Solutions business, the Group manufactures and sells semiconductor materials, display materials, and products related to edge computing, etc.

For the sales contracts on products and merchandise, the Group recognizes revenue upon delivery because the control of the products and merchandise is considered to be transferred to the customer and the performance obligation is satisfied by delivery.

(4) Life Sciences Business

(i) Manufacturing and sale of in-vitro diagnostics and research reagents, related materials, and bioprocess materials

For the sales contracts on products and merchandise, the Group recognizes revenue upon delivery because the control of the products and merchandise is considered to be transferred to the customer and the performance obligation is satisfied by delivery.

(ii) Contract development and manufacturing for bioprocess, etc.

The Group renders services in the contract research and manufacturing businesses related to bioprocess, etc.

For rendering of services, the Group recognizes revenue at over time with fulfillment of performance obligation based on the contract between the Group and the customer.

2) Liabilities Arising from Contracts with the Customers

The Group recognizes unearned revenue arising from contracts with the customers as contract liabilities.

The Group recognized almost all balances of contract liabilities at the beginning of the current fiscal year as revenue in that year, and there is no importance for the amounts carried over from the next consolidated fiscal year.

In addition, in the current consolidated fiscal year, there is no significant amount of revenue arisen from the performance obligations which were satisfied in the past periods.

There are no significant changes in the contract liabilities in the current consolidated fiscal year.

3) Transaction Price Allocated to the Remaining Performance Obligations

The Group applies the practical expedient and omits information on the remaining performance obligations because there are no significant transactions with initial expected contractual terms exceeding one year.

There are no significant amounts of consideration from contracts with customers that are not included in transaction prices.

The consideration does not include a significant financing component, since the consideration for transaction prices is mainly collected within one year from the time of delivery of products and merchandise to customers or the agreement based on the contract such as milestone achievement.

4) Assets Recognized from the Costs of Obtaining or Fulfilling Contracts with Customers

There is no significance in the amount of assets recognized from the costs incurred to obtain or fulfill a contract with a customer in the current consolidated fiscal year.

The Group applies the practical expedient of recognizing the incremental costs of obtaining a contract as an expense when incurred if the amortization period of the asset that the Group otherwise would have recognized is one year or less.

(28) Selling, General and Administrative Expenses

1) Major items in selling, general and administrative expenses are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Transportation and warehousing expenses	¥ 11,703	¥ 12,151	$111,650
Salaries and allowances	23,241	23,651	217,317
Retirement benefit expenses	1,466	1,280	11,759
Experiment and research expenses	24,227	24,066	221,138
Depreciation	3,478	5,798	53,272
Supplies expenses	4,015	3,772	34,663
Business consignment expenses	3,415	3,544	32,569
Other	30,558	30,081	276,405
Total	¥102,105	¥104,343	$958,773

2) Amount of research and development expense included in general and administrative expenses and manufacturing costs

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Research and development expense	¥24,364	¥25,233	$231,857

(29) Other Operating Income and Expenses

Other operating income consisted of as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Gain on sales of non-current assets	¥ 52	¥ 7	$ 63
Rent income	90	84	771
Settlement received	266	—	—
Other	1,316	1,213	11,148
Total	¥1,723	¥1,304	$11,982

Other operating expenses consisted of as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Loss on abandonment of non-current assets	¥ 216	¥ 657	$ 6,041
Loss on sales of non-current assets	21	61	564
Impairment loss	—	1,514	13,908
Provision for environmental measures	399	—	—
Extra payments for early retirements	199	—	—
Other	1,470	2,646	24,317
Total	¥2,306	¥4,879	$44,830

(30) Financial Income and Costs

Financial income consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Interest income			
Financial assets measured at amortized cost	¥ 222	¥ 230	$ 2,113
Dividend income			
Equity financial assets measured at fair value through other comprehensive income	1,409	1,139	10,467
Foreign exchange gains	868	559	5,133
Total	¥2,499	¥1,929	$17,723

Financial costs consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Interest expenses			
Financial liabilities measured at amortized cost	¥1,352	¥1,210	$11,115
Lease liabilities	—	615	5,655
Other*	—	359	3,301
Total	¥1,352	¥2,184	$20,070

*Other is mainly profit or loss on shares of subsidiaries.

(31) Other Comprehensive Income

Changes in items of other comprehensive income are shown below:

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

	Millions of yen				
	Amount incurred	Reclassification	Before tax	Income tax	Net of tax
Other comprehensive income that will not be reclassified to profit or loss					
Net change in financial assets measured at fair value through other comprehensive income	¥(6,813)	¥ —	¥(6,813)	¥2,135	¥(4,678)
Remeasurements of defined benefit plans	78	—	78	(24)	54
Share of other comprehensive income of investments accounted for using the equity method	5	—	5	—	5
Total	¥(6,729)	¥ —	¥(6,729)	¥2,111	¥(4,618)
Items that may be reclassified to profit or loss					
Cash flow hedges	(30)	(49)	(79)	—	(79)
Exchange differences on translation of foreign operations	476	—	476	—	476
Share of other comprehensive income of investments accounted for using the equity method	(1,213)	—	(1,213)	—	(1,213)
Total	¥ (768)	¥(49)	¥ (817)	¥ —	¥ (817)
Total	¥(7,497)	¥(49)	¥(7,546)	¥2,111	¥(5,435)

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Millions of yen				
	Amount incurred	Reclassification	Before tax	Income tax	Net of tax
Other comprehensive income that will not be reclassified to profit or loss					
Net change in financial assets measured at fair value through other comprehensive income	¥(2,034)	¥ —	¥(2,034)	¥ 657	¥(1,377)
Remeasurements of defined benefit plans	952	—	952	(292)	661
Share of other comprehensive income of investments accounted for using equity method	(31)	—	(31)	—	(31)
Total	¥(1,113)	¥ —	¥(1,113)	¥ 366	¥ (747)
Items that may be reclassified to profit or loss					
Cash flow hedges	(103)	(22)	(124)	—	(124)
Exchange differences on translation of foreign operations	(4,068)	(43)	(4,111)	—	(4,111)
Share of other comprehensive income of investments accounted for using the equity method	(904)	—	(904)	—	(904)
Total	¥(5,075)	¥(64)	¥(5,139)	¥ —	¥(5,139)
Total	¥(6,187)	¥(64)	¥(6,252)	¥ 366	¥(5,886)

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

	Thousands of U.S. dollars				
	Amount incurred	Reclassification	Before tax	Income tax	Net of tax
Other comprehensive income that will not be reclassified to profit or loss					
Net change in financial assets measured at fair value through other comprehensive income	$(18,690)	$ —	$(18,690)	$ 6,040	$(12,650)
Remeasurements of defined benefit plans	8,750	—	8,750	(2,679)	6,071
Share of other comprehensive income of investments accounted for using equity method	(286)	—	(286)	—	(286)
Total	$(10,225)	$ —	$(10,225)	$ 3,361	$ (6,864)
Items that may be reclassified to profit or loss					
Cash flow hedges	(943)	(200)	(1,143)	—	(1,143)
Exchange differences on translation of foreign operations	(37,380)	(392)	(37,771)	—	(37,771)
Share of other comprehensive income of investments accounted for using the equity method	(8,306)	—	(8,306)	—	(8,306)
Total	$(46,628)	$(591)	$(47,220)	$ —	$(47,220)
Total	$(56,853)	$(591)	$(57,445)	$ 3,361	$(54,084)

(32) Earnings per Share

	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
1) Basic earnings per share	¥140.62	¥104.38	$0.96
Continuing operations	¥148.92	¥103.22	$0.95
Discontinued operations	(¥8.30)	¥1.16	$0.01
(Basis of calculation)			
Profit attributable to owners of parent	¥31,116 million	¥22,604 million	$207,699 thousand
Continuing operations	¥32,953 million	¥22,352 million	$205,385 thousand
Discontinued operations	(¥1,837 million)	¥252 million	$2,314 thousand
Average shares outstanding during the year (1,000 shares)	221,276	216,545	216,545
2) Diluted earnings per share	¥140.27	¥104.19	$0.96
Continuing operations	¥148.55	¥103.03	$0.95
Discontinued operations	(¥8.28)	¥1.16	$0.01
(Basis of calculation)			
Increase in common stock due to stock options (1,000 shares)	551	405	405
Average diluted shares outstanding during the year (1,000 shares)	221,827	216,950	216,950

(33) Share-based Remuneration

1) Stock Options

(i) Overview of Share-based Remuneration Plan

The Group operated an equity-settled share-based remuneration plan where it received services from directors, executive officers, and employees and paid equity instruments (options) as consideration thereof until June 2017.

The fair value on the date the option was granted under the plan is recognized as an expense over the option's vesting period and the same amount is recorded as an increase of equity. The plan was terminated in June 2017 (however, share acquisition rights already granted as share-based stock options to directors, etc. that have not been exercised will be continued).

(ii) Number and Weighted Average Exercise Prices of Stock Options

	Shares	Yen	Shares	Yen	U.S. dollars
	Fiscal year ended March 31, 2019		Fiscal year ended March 31, 2020		
	Number of shares	Weighted average exercise price	Number of shares	Weighted average exercise price	Weighted average exercise price
Outstanding at the beginning	615,300	¥ 1	480,200	¥ 1	$0.01
Granted	—	—	—	—	—
Exercised	(135,100)	1	(119,200)	1	0.01
Forfeited	—	—	—	—	—
Expired	—	—	—	—	—
Outstanding at the end	480,200	1	361,000	1	0.01
Exercisable at the end	267,700	1	229,100	1	0.01

The weighted average share price as of the exercise date of stock options exercised during the period was ¥1,784 and ¥1,697 ($15.59) in the fiscal years ended March 31, 2019 and 2020, respectively.

In the fiscal years ended March 31, 2019 and 2020, the exercise price of unexercised stock options was ¥1 each. The weighted average remaining contract terms in the fiscal years ended March 31, 2019 and 2020 were 11.0 years and 10.5 years, respectively, for the unexercised balance at the end of the fiscal year, and 12.3 years and 10.0 years, respectively, for the exercisable balance at the end of the fiscal year.

2) Restricted Share-Based Remuneration Plan

The Group employs the restricted share-based remuneration plan in order to further promote sharing of values with shareholders and establish a remuneration structure that contributes to sustained improvement in corporate value in the medium to long term. Under this plan, to grant restricted shares to directors, excluding outside directors, and executive officers (hereinafter "Eligible Directors, etc."), the Company is to provide the Eligible Directors, etc. with claims for monetary remuneration in principle in each period and have them contribute these claims in kind as contributed properties to the Company. Accordingly, the Company is to issue or dispose of ordinary shares of the Company to the Eligible Directors, etc. and make them hold the shares.

The Company enters into an agreement with Eligible Directors, etc. for allotment of restricted shares, and Eligible Directors, etc. cannot transfer, pledge or dispose of in any other way shares granted under the allotment agreement at will during a given period of time stipulated in the agreement (hereinafter the "Transfer Restriction Period") (hereinafter, the "Transfer Restriction"). The Transfer Restriction is lifted for all shares held by Eligible Directors, etc. when the Transfer Restriction Period expires, on the condition that the Eligible Directors, etc. continued to hold a position of directors, executive officers, audit & supervisory board members, employees, or any other equivalent position of the Company or its subsidiaries during the Transfer Restriction Period. On the other hand, under this structure, shares for which the Transfer Restriction has not been lifted at the time when the Transfer Restriction Period expires are acquired by the Company without any payment in principle.

Details of restricted shares granted during the period are as follows:

	Fiscal year ended March 31, 2020 (from April 1, 2019 to March 31, 2020)
Number of restricted shares granted	171,100 shares
Fair value on the grant date	¥1,706 per share ($15.68 per share)
Calculation method for fair value measurement	Calculated on the basis of closing price of ordinary shares of the Company at the Tokyo Stock Exchange on the business day proceeding the date when the Board of Directors adopted a resolution.
Transfer Restriction Period	3 years

3) Share-based Remuneration Expense

The amount of share-based remuneration expense included in "selling, general and administrative expenses" in the consolidated statement of profit or loss was, ¥104 million in the fiscal year ended March 31, 2019 and ¥245 million ($2,253 thousand) in the fiscal year ended March 31, 2020.

(34) Financial Instruments

1) Capital Management Policy

The Group considers it vitally important to improve corporate performance on a long-term basis and achieve improvement in corporate value in the medium to long term by strengthening its research and development activities from a long-term viewpoint and enhancing competitiveness through development of new businesses. For capital efficiency, the Group monitors ROE on a timely basis.

2) Financial Risks

The Group is exposed to financial risks related to operating activities (market risk, credit risk and liquidity risk), and conducts risk management based on a certain policy to avoid or mitigate effects of the risks. For fund management, approval of the Company's Board of Directors is received in principle at the beginning of each period. Transactions and risk management during the period are principally conducted based on internal management regulations.

The Group uses derivatives to avert risks described below, and as its policy, does not perform any speculative transaction.

(i) Market Risks

(a) Exchange Rate Risks

The Group operates business globally and sells products manufactured by the Company and each subsidiary and others abroad. Thus, the Group is exposed to the risk that profit or loss, cash flows, etc. are affected by fluctuations in exchange rates.

To avoid exchange rate risks, the Group mainly utilizes foreign exchange forward contracts as derivative transactions for trade receivables and payables denominated in foreign currencies.

The Company's responsible department manages risks in accordance with the derivative transaction management regulations that specify authority for transactions, maximum amount, etc. and reports monthly trading results to responsible directors.

Details of currency derivatives are as follows:

Derivative Transactions to which Hedge Accounting Is Not Applied

	Millions of yen					
	As of March 31, 2019			As of March 31, 2020		
	Contracted Amount	Later than one year	Fair value	Contracted Amount	Later than one year	Fair value
U.S. dollar						
Forward exchange contracts						
Purchase	¥ 911	¥—	¥ (3)	¥ 585	¥—	¥ 4
Sell	6,543	—	(34)	6,670	—	(49)
Total	¥7,454	¥—	¥(37)	¥7,255	¥—	¥(44)

	Thousands of U.S. dollars		
	As of March 31, 2020		
	Contracted Amount	Later than one year	Fair value
U.S. dollar			
Forward exchange contracts			
Purchase	$ 5,371	$—	$ 41
Sell	61,290	—	(447)
Total	$66,661	$—	$(406)

Although the Group does not apply hedge accounting to these derivative transactions, it considers that the transactions effectively offset effects of exchange fluctuations.

Exposure to Exchange Rate Risks

The Group's exposure of Japanese yen, Korean won and Thai baht as functional currencies against the US dollar, the major foreign currency, is as follows. These amounts are after deduction of amounts of exchange rate risks hedged through derivative transactions, etc.

	Millions of yen		Thousands of U.S. dollars
Functional Currency	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Japanese yen	¥6,232	¥4,613	$42,385
Korean won	4,753	3,472	31,901
Thai baht	4,008	3,831	35,206

Foreign Exchange Sensitivity Analysis

With regard to foreign currency receivables and payables held by the Group at the end of each fiscal year, effects of 1% depreciation of the US dollar against each functional currency on profit before tax in the consolidated statement of profit or loss are as follows. If each currency moves inversely, this will have effects opposite to and at the same amount as the table below. The calculation is based on the assumption that currencies other than the currency used do not fluctuate.

	Millions of yen		Thousands of U.S. dollars
Functional Currency	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Japanese yen (weak U.S. dollar)	¥(62)	¥(46)	$(424)
Korean won (weak U.S. dollar)	(48)	(35)	(319)
Thai baht (weak U.S. dollar)	(40)	(38)	(352)

The Group hedges against the risk of exchange rate fluctuations regarding net investment in foreign operations by using foreign currency borrowings. The Group designates it as hedges of net investment.

(b) Equity Price Risks

Equity instruments held by the Group are principally shares of companies with which the Group has business relationships. These shares were acquired to expand businesses mutually and enhance the transaction relationships, and the Group does not hold the shares for the purpose of short-term trading.

Equity instruments include listed shares and unlisted shares. The Group periodically monitors market value, financial conditions of the issuers (business partners), etc. and reviews the ownership in light of the relationships with the business partners.

If the share price increases (decreases) by 5% with other changing factors remaining constant, other components of equity (net of related tax effects) will increase (decrease) by ¥1,001 million ($9,195 thousand) for the fiscal year ended March 31, 2020 (fiscal year ended March 31, 2019: ¥1,889 million) due to the change in fair value.

(c) Interest Rate Risks

The Group is exposed to interest rate fluctuation risks because it receives variable-rate loans from financial institutions.

For variable-rate, long-term borrowings involving interest rate fluctuation risks, the Group mitigates the risks by fixing cash flows using interest rate swap transactions, and applies cash flow hedges.

Exposure to interest rate fluctuation risks for the Group is limited, and effects of interest rate fluctuations are insignificant.

(ii) Credit Risks

The Group's trade and other receivables, other financial assets, etc. are exposed to credit risks of customers.

The Group establishes terms of collection and credit limit for transaction partners. In addition, the Group confirms the credit status periodically by obtaining the latest credit report on transaction partners from external organizations where necessary and analyzing the report as well as past results of collection and other factors. If it is considered that there is any change or abnormality in the credit status as a result of the confirmation, measures for protection of receivables are taken appropriately, including change in the credit limit, modification of the terms of collection or obtaining transaction credit insurance.

In the execution of derivative transactions, the Group conducts transactions only with financial institutions with high credit ratings in principle to mitigate credit risks.

The Group classifies receivables, etc. based on nature of the credit risk to calculate loss allowance.

In terms of trade receivables that do not include significant financial components, the loss allowance is always determined as the same amount as lifetime expected credit loss (simplified approach). The amount of expected credit loss is calculated by classifying receivables, etc. according to nature of the credit risk of the counterparty and multiplying the receivables amount by the allowance rate set according to the classification. This allowance rate is set in view of the probability of future occurrence of credit loss based on external credit reports.

In terms of other receivables, etc., the loss allowance is measured as the same amount as the 12-month expected credit loss in principle. The amount of expected credit loss is calculated by multiplying the gross carrying amount by the allowance rate established as stated above, in accordance with the general approach.

Of other receivables, etc., in terms of assets for which the credit risk has significantly increased from the initial recognition, including the case where the receivable is past due for payment, and credit-impaired financial assets, the loss allowance is recognized at the same amount as lifetime expected credit loss. In doing so, the amount of expected credit loss is determined as the difference between the present value, which is calculated by discounting future estimated cash flows using the original effective interest rate for the asset, and the gross carrying amount.

Gross carrying amount and loss allowance of financial assets for which loss allowance is recognized are as shown below. Time deposits are excluded from the table below as those are considerated to be not exposed to credit risks.

	Millions of yen				
	Gross carrying amount				
	Trade and other receivables			Other financial assets	
	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses	Measured by simplified approach	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses
As of March 31, 2019	¥18,321	¥0	¥117,573	¥2,884	¥309
As of March 31, 2020	¥12,748	¥0	¥ 98,547	¥3,879	¥130
	Thousands of U.S. dollars				
As of March 31, 2020	$117,136	$0	$905,512	$35,640	$1,193

* Financial assets for which loss allowance is measured at the amount equivalent to lifetime expected credit loss are principally credit-impaired financial assets.
* Credit risk rating:
For financial assets for which loss allowance is measured at 12-month expected credit loss, the credit risk rating for expected credit loss (assets to which the simplified approach is applied also correspond to this) is relatively high compared to financial assets for which loss allowance is measured at the amount equivalent to lifetime expected credit loss, and the credit rating of financial assets falling in the same category is basically the same.

	Millions of yen				
	Loss Allowance				
	Trade and other receivables			Other financial assets	
	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses	Measured by simplified approach	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses
As of April 1, 2018	¥—	¥ 263	¥ 273	¥ 1	¥ 390
Increase	—	—	196	—	4
Decrease (Utilization)	—	—	(339)	—	(30)
Decrease (Reversal)	—	(17)	(137)	(0)	(54)
Other	—	(246)	624	—	(1)
As of March 31, 2019	¥—	¥ 0	¥ 618	¥ 1	¥ 309
Increase	—	—	676	—	47
Decrease (Utilization)	—	—	(28)	—	(225)
Decrease (Reversal)	—	—	(545)	(1)	0
Other	—	—	68	—	(1)
As of March 31, 2020	¥—	¥ 0	¥ 789	¥ 0	¥ 130

	Thousands of U.S. dollars				
	Loss Allowance				
	Trade and other receivables			Other financial assets	
	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses	Measured by simplified approach	Measured at 12-month expected credit losses	Measured at lifetime expected credit losses
As of March 31, 2019	$—	$ 0	$ 5,677	$ 5	$ 2,840
Increase	—	—	6,211	—	430
Decrease (Utilization)	—	—	(261)	—	(2,070)
Decrease (Reversal)	—	0	(5,009)	(5)	(0)
Other	—	0	628	—	(7)
As of March 31, 2020	$—	$ 0	$ 7,246	$ 0	$ 1,193

*There is no significant change in gross carrying amount that could affect a change in loss allowance.

The maximum exposure for credit risk of financial assets is the carrying amount presented in the consolidated statement of financial position.

With regard to debt guarantees, the maximum exposure for credit risk is as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Guarantee Obligation	¥3,032	¥3,140	$28,852

*Loss allowance related to losses that could arise due to performance of a debt guarantee contract has not been recorded.

(iii) Liquidity Risks

Liquidity risks are the risks that the Group cannot execute a payment on the due date. Funds of the Group as a whole are in a position of net cash where funds held exceed borrowings. The Group formulates a financial plan based on the annual business plan, and then manages liquidity risks by ensuring an appropriate balance between direct and indirect financing and between short-term and long-term financing to prepare for these risks.

The balance of financial liabilities of the Group by maturity is as follows:

	Millions of yen							
As of March 31, 2019	Carrying amount	Not later than one year	1-2 years	2-3 years	3-4 years	4-5 years	Later than 5 years	Contractual cash flows Total
Trade and other receivables	¥118,053	¥118,053	¥ —	¥ —	¥ —	¥ —	¥ —	¥118,053
Borrowings	84,296	33,818	12,910	11,697	10,093	7,849	10,182	86,549
Derivative liabilities	17	17	—	—	—	—	—	17
Other	1,731	515	309	267	230	203	207	1,731
Total	¥204,097	¥152,403	¥13,219	¥11,964	¥10,323	¥8,052	¥10,389	¥206,350

	Millions of yen							
As of March 31, 2020	Carrying amount	Not later than one year	1-2 years	2-3 years	3-4 years	4-5 years	Later than 5 years	Contractual cash flows Total
Trade and other receivables	¥ 92,839	¥ 92,839	¥ —	¥ —	¥ —	¥ —	¥ —	¥ 92,839
Borrowings	82,726	30,210	13,816	8,186	12,109	19,527	379	84,226
Derivative liabilities	111	44	—	—	—	—	66	111
Lease liabilities	18,766	3,425	3,313	1,965	1,824	1,609	8,332	20,468
Total	¥194,442	¥126,518	¥17,129	¥10,151	¥13,933	¥21,136	¥8,777	¥197,644

	Thousands of U.S. dollars							
As of March 31, 2020	Carrying amount	Not later than one year	1-2 years	2-3 years	3-4 years	4-5 years	Later than 5 years	Contractual cash flows Total
Trade and other receivables	$ 853,067	$ 853,067	$ —	$ —	$ —	$ —	$ —	$ 853,067
Borrowings	760,143	277,588	126,948	75,218	111,263	179,431	3,479	773,927
Derivative liabilities	1,017	408	—	—	—	—	608	1,017
Lease liabilities	172,435	31,469	30,443	18,054	16,756	14,787	76,564	188,073
Total	$1,786,662	$1,162,532	$157,392	$93,272	$128,019	$194,218	$80,651	$1,816,083

3) Fair Value of Financial Instruments

The Group classifies financial instruments into the following three levels in the fair value hierarchy according to the observability of inputs used for fair value measurement in markets:

Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities
Level 2: Directly or indirectly observable inputs that are not included in Level 1
Level 3: Fair value that is determined using a valuation technique including unobservable inputs

Carrying amount and fair value of financial instruments measured at amortized cost are as follows:

	Millions of yen				Thousands of U.S. dollars	
	As of March 31, 2019		As of March 31, 2020		As of March 31, 2020	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Long-term loans payable	¥62,601	¥61,868	¥59,167	¥58,412	$543,664	$536,724

The above figures include balances to be collected within one year or to be repaid and redeemed within one year.

Financial instruments for which the carrying amount is reasonably approximate to the fair value are not included in the table above.

For fair value of long-term borrowings, the method where the fair value is calculated by discounting the total amount of principal and interest using the interest rate assumed for a similar new loan is used.

Borrowings are classified as Level 3 in the fair value hierarchy.

Assets and liabilities measured at fair value by the Group are as follows:

	Millions of yen			
As of March 31, 2019	Level 1	Level 2	Level 3	Total
<Financial Assets>				
Financial assets measured at fair value through profit or loss				
Investments (equity financial assets)	¥ —	¥—	¥ 4,570	¥ 4,570
Derivatives	—	1	—	1
Financial assets measured at fair value through other comprehensive income				
Investments (equity financial assets)	37,786	—	12,649	50,434
Financial assets defined as hedging instruments				
Derivatives	—	58	—	58
Total	¥37,786	¥60	¥17,219	¥55,064
<Financial Liabilities>				
Financial liabilities measured at fair value through profit or loss				
Derivatives	—	17	—	17
Total	¥ —	¥17	¥ —	¥ 17

As of March 31, 2020	Millions of yen Level 1	Level 2	Level 3	Total
<Financial Assets>				
Financial assets measured at fair value through profit or loss				
Investments (equity financial assets)	¥ —	¥ —	¥ 3,582	¥ 3,582
Derivatives	—	3	—	3
Financial assets measured at fair value through other comprehensive income				
Investments (equity financial assets)	20,013	—	16,360	36,373
Financial assets defined as hedging instruments				
Derivatives	—	—	—	—
Total	¥20,013	¥ 3	¥19,942	¥39,958
<Financial Liabilities>				
Financial liabilities measured at fair value through profit or loss				
Derivatives	—	44	—	44
Financial liabilities measured at fair value through other comprehensive income				
Financial liabilities defined as hedging instruments				
Derivatives	—	66	—	66
Total	¥ —	¥111	¥ —	¥ 111

As of March 31, 2020	Thousands of U.S. dollars Level 1	Level 2	Level 3	Total
<Financial Assets>				
Financial assets measured at fair value through profit or loss				
Investments (equity financial assets)	$ —	$ —	$ 32,915	$ 32,915
Derivatives	—	24	—	24
Financial assets measured at fair value through other comprehensive income				
Investments (equity financial assets)	183,896	—	150,323	334,219
Financial assets defined as hedging instruments				
Derivatives	—	—	—	—
Total	$183,896	$ 24	$183,238	$367,158
<Financial Liabilities>				
Financial liabilities measured at fair value through profit or loss				
Derivatives	—	408	—	408
Financial liabilities measured at fair value through other comprehensive income				
Financial liabilities defined as hedging instruments				
Derivatives	—	608	—	608
Total	$ —	$1,017	$ —	$ 1,017

(Note) Other than the above assets and liabilities, the Company has entered into an agreement with non-controlling shareholders that the Company purchases all interests held by the non-controlling shareholders under certain terms and conditions. With regard to the obligations to purchase these interests, ¥460 million ($4,223 thousand) that is the present value of the purchase amount has been recognized as financial liabilities. These are classified as Level 3 in the fair value hierarchy.

Transfer between levels in the fair value hierarchy is recognized on the day when the event or change in circumstances that caused the transfer occurred. In each fiscal year, there was no significant transfer between Level 1 and Level 2 in the fair value hierarchy.

Changes in financial instruments classified as Level 3 are as follows:

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019 (from April 1, 2018 to March 31, 2019)	Fiscal year ended March 31, 2020 (from April 1, 2019 to March 31, 2020)	Fiscal year ended March 31, 2020 (from April 1, 2019 to March 31, 2020)
Balance at the beginning	¥14,631	¥17,219	$158,220
Total gains and losses	195	355	3,261
Profit or loss	(53)	(271)	(2,486)
Other comprehensive income (Note)	248	625	5,746
Purchase	3,430	4,171	38,325
Selling	—	(56)	(515)
Other	(1,037)	(1,747)	(16,052)
Balance at the end	¥17,219	¥19,942	$183,238

(Note) Gains and losses included in other comprehensive income relate to financial assets measured at fair value through other comprehensive income as at the reporting date. These gains and losses are included in "net change in financial assets measured at fair value through other comprehensive income" in the consolidated statement of comprehensive income.

Financial assets and liabilities classified as Level 2 are derivative transactions related to foreign exchange forward contracts, interest rate swaps, etc. Fair value of foreign exchange forward contracts, interest rate swaps, etc. is calculated based on observable market data such as interest rate presented by financial institutions with which the Group has transactions and others.

Financial assets classified as Level 3 are mainly unlisted shares.

With regard to valuation of unlisted shares, principally, the fair value is measured taking into account future profitability or cash flows of the investees comprehensively. The results are reviewed and approved by a person with appropriate authority. For financial instruments classified as Level 3, an increase or decrease in fair value if unobservable inputs are changed to reasonably possible alternative assumptions is not significant.

4) Hedge Accounting

Effects of hedging instruments designated as hedge on the Group's consolidated statement of financial position are as follows:

	Millions of yen			
	Notional principal of hedging instruments	Carrying amount of hedging instruments		Item on the consolidated statement of financial position
As of March 31, 2019		Asset	Liability	
Cash flow hedges				
Interest rate risk				
Interest rate swap	¥7,869	¥58	¥ —	Other financial liabilities
Hedging instruments of net investment in foreign operations				
Exchange rate risk				
Borrowings in U.S. dollars	17,471 ($157 million)	—	17,471	Borrowings

	Millions of yen			
	Notional principal of hedging instruments	Carrying amount of hedging instruments		Item on the consolidated statement of financial position
As of March 31, 2020		Asset	Liability	
Cash flow hedges				
Interest rate risk				
Interest rate swap	¥4,516	¥—	¥ 66	Other financial liabilities
Hedging instruments of net investment in foreign operations				
Exchange rate risk				
Borrowings in U.S. dollars	11,862 ($109 million)	—	11,862	Borrowings

	Thousands of U.S. dollars			
	Notional principal of hedging instruments	Carrying amount of hedging instruments		Item on the consolidated statement of financial position
As of March 31, 2020		Asset	Liability	
Cash flow hedges				
Interest rate risk				
Interest rate swap	$ 41,500	$—	$ 608	Other financial liabilities
Hedging instruments of net investment in foreign operations				
Exchange rate risk				
Borrowings in U.S. dollars	109,000		109,000	Borrowings

There are no cash flow hedge reserves arising from hedge relationship for which the hedge accounting was discontinued, and no ineffective portion of hedges recognized in profit or loss.

Effects of hedging instruments designated as cash flow hedges and hedges of net investment on the Group's profit or loss and other comprehensive income are as follows:

	Millions of yen		
Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)	Hedging gains (losses) recognized as other comprehensive income (Note)	Transfer from other components of equity to profit or loss as reclassification adjustments (Note)	Item of transfer to profit or loss as reclassification adjustments
Cash flow hedges			
Interest rate risk			
Interest rate swap	¥ (79)	¥(49)	Financial costs
Hedging instruments of net investment in foreign operations			
Exchange rate risk			
Borrowings in U.S. dollars	337	—	—

(Note) Before tax effect

	Millions of yen		
Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)	Hedging gains (losses) recognized as other comprehensive income (Note)	Transfer from other components of equity to profit or loss as reclassification adjustments (Note)	Item of transfer to profit or loss as reclassification adjustments
Cash flow hedges			
Interest rate risk			
Interest rate swap	¥(124)	¥(22)	Financial costs
Hedging instruments of net investment in foreign operations			
Exchange rate risk			
Borrowings in U.S. dollars	(67)	—	—

(Note) Before tax effect

	Thousands of U.S. dollars		
Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)	Hedging gains (losses) recognized as other comprehensive income (Note)	Transfer from other components of equity to profit or loss as reclassification adjustments (Note)	Item of transfer to profit or loss as reclassification adjustments
Cash flow hedges			
Interest rate risk			
Interest rate swap	$(1,143)	$(200)	Financial costs
Hedging instruments of net investment in foreign operations			
Exchange rate risk			
Borrowings in U.S. dollars	(620)	—	—

(Note) Before tax effect

(35) Subsidiaries

The number of consolidated subsidiaries as of March 31, 2020 was 61 (61 as of March 31, 2019).

Changes in the consolidated subsidiaries in the current fiscal year are as follows:
The number of companies consolidated by acquisition, establishment, etc.: 3
The number of subsidiaries excluded by liquidation, sales, etc.: 3

The condensed financial information for consolidated subsidiaries for which the Group has recognized significant non-controlling interests are as follows. The condensed financial information shows the amount before elimination of transactions within the Group.

Techno-UMG Co., Ltd.

(1) Proportion of non-controlling interests and the cumulative amount of non-controlling interests

	Millions of yen	Thousands of U.S. dollars
	As of March 31, 2020	As of March 31, 2020
Proportion of share of non-controlling interests	49%	49%
The cumulative amount of non-controlling interests	¥19,232	$176,712

(2) Profit or loss allocated to non-controlling interests and dividends paid for non-controlling interests

	Millions of yen	Thousands of U.S. dollars
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Profit or loss allocated to non-controlling interests	¥2,077	$19,084
Dividends paid for non-controlling interests	1,406	12,919

(3) The condensed financial information

1) Condensed Statement of Financial Position

	Millions of yen	Thousands of U.S. dollars
	As of March 31, 2020	As of March 31, 2020
Current assets	¥36,175	$332,400
Non-current assets	23,200	213,180
Total assets	59,376	545,581
Current liabilities	15,277	140,372
Non-current liabilities	772	7,095
Total current liabilities	¥16,049	$147,468
Total equity	¥43,327	$398,113
Total liabilities and equity	¥59,376	$545,581

2) Condensed Statements of Profit or Loss and Comprehensive Income

	Millions of yen	Thousands of U.S. dollars
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Revenue	¥78,657	$722,756
Profit (loss)	4,240	38,961
Comprehensive income	4,134	37,984

3) Condensed Statement of Cash Flows

	Millions of yen	Thousands of U.S. dollars
	Fiscal year ended March 31, 2020	Fiscal year ended March 31, 2020
Cash flows from operating activities	¥ 6,437	$ 59,147
Cash flows from investing activities	(2,540)	(23,339)
Cash flows from financing activities	(3,569)	(32,794)
Net increase (decrease) in cash and cash equivalents	328	3,014
Cash and cash equivalents at the end of the period	3,981	36,580

(36) Related Parties

1) Transactions with Joint Venture

Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)

			Millions of yen	
Attribute	Name of the company	Contents of transactions	Transaction amount	Balance at the end of the current fiscal year
Joint venture	KRATON JSR ELASTOMERS K. K.	Manufacturing consignment of elastomer products	¥11,134	¥6,150
		Supply of raw material gas	5,558	3,013

(Notes) 1. Transactions with joint venture have been determined through price negotiations in light of market prices and others. In addition, the receivables and payables are settled in cash and consistent with the terms of third party settlements.
2. There is no outstanding balance of collateral or guarantee. Loss allowance has not been made for the receivables.

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

			Millions of yen	
Attribute	Name of the company	Contents of transactions	Transaction amount	Balance at the end of the current fiscal year
Joint venture	KRATON JSR ELASTOMERS K. K.	Manufacturing consignment of elastomer products	¥8,863	¥3,229
		Supply of raw material gas	4,141	1,506

(Notes) 1. Transactions with joint venture have been determined through price negotiations in light of market prices and others. In addition, the receivables and payables are settled in cash and consistent with the terms of third party settlements.
2. There is no outstanding balance of collateral or guarantee. Loss allowance has not been made for the receivables.

Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)

			Thousands of U.S. dollars	
Attribute	Name of the company	Contents of transactions	Transaction amount	Balance at the end of the current fiscal year
Joint venture	KRATON JSR ELASTOMERS K. K.	Manufacturing consignment of elastomer products	$81,437	$29,666
		Supply of raw material gas	38,052	13,835

(Notes) 1. Transactions with joint venture have been determined through price negotiations in light of market prices and others. In addition, the receivables and payables are settled in cash and consistent with the terms of third party settlements.
2. There is no outstanding balance of collateral or guarantee. Loss allowance has not been established for the receivables.

2) Key Management Personnel Compensation

	Millions of yen		Thousands of U.S. dollars
	Fiscal year ended March 31, 2019 (April 1, 2018 to March 31, 2019)	Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)	Fiscal year ended March 31, 2020 (April 1, 2019 to March 31, 2020)
Basic compensation	¥276	¥361	$3,320
Bonuses	103	134	1,234
Share-based remuneration	37	99	914
Total	¥416	¥595	$5,467

(37) Commitments

Commitments related to expenditures taking place after the last day of the fiscal year are as follows:

	Millions of yen		Thousands of U.S. dollars
	As of March 31, 2019	As of March 31, 2020	As of March 31, 2020
Acquisition of property, plant and equipment	¥1,573	¥5,152	$47,340

(38) Subsequent Events

Issuance of corporate bonds

JSR gained approval for issuance of corporate bonds at the Board of Directors meeting held on May 11, 2020 and issued unsecured bonds on May 28, 2020.

The details are as below.

Name of the bonds	JSR Corporation Unsecured Bonds (with special pari passu conditions among bonds) series 8
Total amount of bonds	¥13,000 million
Denomination per bond	¥100 million
Coupon rate	0.180%
Date of coupon payment	May 28 and November 28, every year
Issue price	100 yen per face value of 100 yen
Date of issuance	May 28, 2020
Method and due date for the redemption	1. Redemption amount 100 yen per face value of 100 yen 2. Redemption and maturity date (1) The principal of the bonds will be redeemed in a lump sum on May 28, 2025. (In the case of retirement by purchase, the total amount of the bonds purchased will be deducted.) (2) If the redemption date is a bank holiday, it will be advanced to a previous business day. (3) The issuer may repurchase the bonds after the payment date unless otherwise provided in the laws and ordinances or regulations such as operating rules regarding to the service of the custody of transfer agency stated in the separate paragraph.
Collateral	No collateral or guarantee is pledged, and no assets are specifically reserved to secure the bonds.
Use of proceeds	Capital investment, working capital and repayment of borrowings

Name of the bonds	JSR Corporation Unsecured Bonds (with special pari passu conditions among bonds) series 9
Total amount of bonds	¥10,000 million
Denomination per bond	¥100 million
Coupon rate	0.290%
Date of coupon payment	May 28 and November 28, every year
Issue price	100 yen per face value of 100 yen
Date of issuance	May 28, 2020
Method and due date for the redemption	1. Redemption amount 100 yen per face value of 100 yen 2. Redemption and maturity date (1) The principal of the bonds will be redeemed in a lump sum on May 28, 2027. (In the case of retirement by purchase, the total amount of the bonds purchased will be deducted.) (2) If the redemption date is a bank holiday, it will be advanced to a previous business day. (3) The issuer may repurchase the bonds after the payment date unless otherwise provided in the laws and ordinances or regulations such as operating rules regarding to the service of the custody of transfer agency stated in the separate paragraph.
Collateral	No collateral or guarantee is pledged, and no assets are specifically reserved to secure the bonds.
Use of proceeds	Capital investment, working capital and repayment of borrowings

Name of the bonds	JSR Corporation Unsecured Bonds (with special pari passu conditions among bonds) series 10
Total amount of bonds	¥12,000 million
Denomination per bond	¥100 million
Coupon rate	0.370%
Date of coupon payment	May 28 and November 28, every year
Issue price	100 yen per face value of 100 yen
Date of issuance	May 28, 2020
Method and due date for the redemption	1. Redemption amount 100 yen per face value of 100 yen 2. Redemption and maturity date (1) The principal of the bonds will be redeemed in a lump sum on May 28, 2030. (In the case of retirement by purchase, the total amount of the bonds purchased will be deducted.) (2) If the redemption date is a bank holiday, it will be advanced to a previous business day. (3) The issuer may repurchase the bonds after the payment date unless otherwise provided in the laws and ordinances or regulations such as operating rules regarding to the service of the custody of transfer agency stated in the separate paragraph.
Collateral	No collateral or guarantee is pledged, and no assets are specifically reserved to secure the bonds.
Use of proceeds	Capital investment, working capital and repayment of borrowings

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of JSR Corporation:

Opinion

We have audited the accompanying consolidated financial statements of JSR Corporation and its consolidated subsidiaries (collectively referred to as "the Group"), which comprise the consolidated statement of financial position as at March 31, 2020, and the consolidated statements of profit or loss, comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising significant accounting policies and other explanatory information.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at March 31, 2020, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Japan, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of Management and Corporate Auditors and the Board of Corporate Auditors for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern in accordance with IFRS and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Corporate auditors and the board of corporate auditors are responsible for overseeing the directors' performance of their duties including the design, implementation and maintenance of the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of our audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, while the objective of the audit is not to express an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the presentation and disclosures in the consolidated financial statements are in accordance with IFRS, the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with corporate auditors and the board of corporate auditors regarding, among other matters, the planned scope and timing of the audit, significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide corporate auditors and the board of corporate auditors with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

Convenience Translation

The U.S. dollar amounts in the accompanying consolidated financial statements with respect to the year ended March 31, 2020 are presented solely for convenience. Our audit also included the translation of yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made on the basis described in Note 2 to the consolidated financial statements.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

We do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan

Tomoyoshi Inoue
Designated Engagement Partner
Certified Public Accountant

Koichi Kohori
Designated Engagement Partner
Certified Public Accountant

Yukihiro Kase
Designated Engagement Partner
Certified Public Accountant

KPMG AZSA LLC
Tokyo Office, Japan
July 8, 2020

Notes to the Reader of Independent Auditor's Report:
This is a copy of the Independent Auditor's Report and the original copies are kept separately by JSR Corporation and KPMG AZSA LLC.