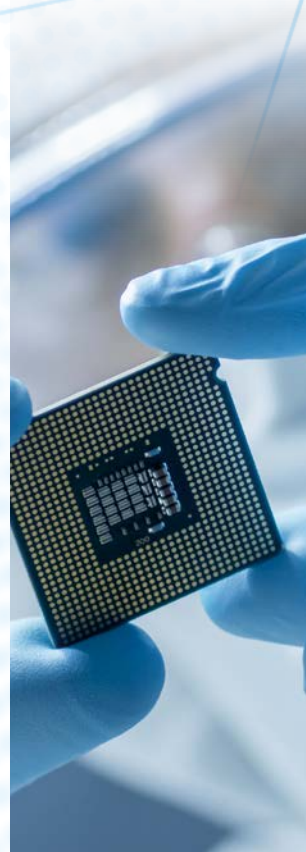


# JSR Corporation



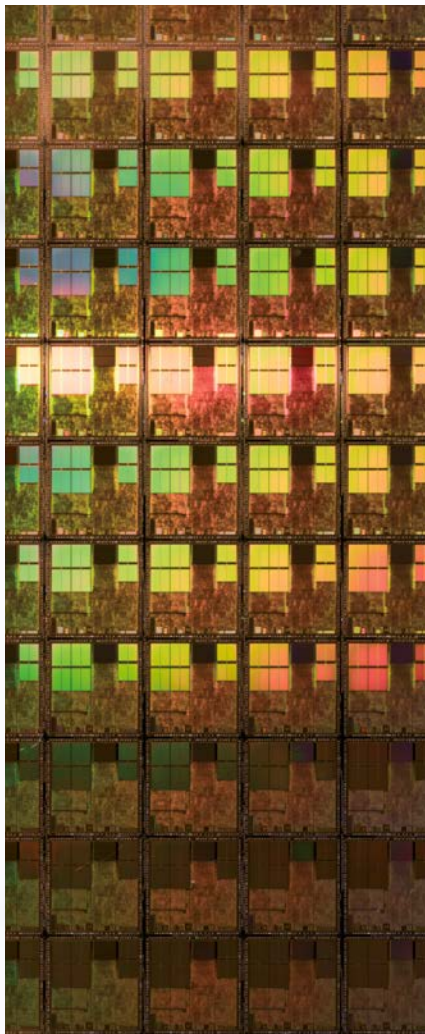
## MATERIALS INNOVATION

CORPORATE PROFILE



# Materials that Support Society

JSR Group products are used in a vast range of everyday products, materials and components including tires and other products for automobiles, LCD televisions, smartphones and tablet PCs.



## INDEX

- 01 Materials that Support Society
- 03 Contributing to Society by Creating Materials for Tomorrow
- 05 Message from Top Executives
- 07 THE JSR VISION
- 09 Product Outline
- 17 R&D Policy and Organization
- 19 JSR Integrated Production Process
- 21 Sustainability Initiatives
- 23 JSR's Network in the World
- 25 JSR's Network in Japan

### ELASTOMERS BUSINESS

We supply high-quality products including synthetic rubbers that were among our first products, thermoplastic elastomers that have the characteristics of both rubber and plastic, and emulsions developed from technologies based on the polymerization of our synthetic rubbers and plastics. We also supply a wide range of functional materials including industrial-use particles and battery materials.

### PLASTICS BUSINESS

In this area, we focus primarily on ABS resins used for a wide range of purposes, including automobile parts, household appliances and building materials.

### DIGITAL SOLUTIONS BUSINESS

Using technologies cultivated through the development of polymer materials, JSR develops and supplies many global leading products including lithography materials, chemical mechanical planarization (CMP) materials and packaging materials, which are essential to the production of semiconductor microchips. Our LCD materials and next-generation display materials are used in the production of LCD and OLED displays. We also supply UV-curable resins used in 3D printing.

### LIFE SCIENCES BUSINESS

In this area, with the expanded range of global strategic partners from both inside and outside the JSR Group, we focus on the drug development process mainly through a system that supports the entire process from discovery to development to production of drug therapies. We also provide bioprocess materials and diagnostics and research reagents based on our polymer technology.

### OTHER BUSINESSES

Among other activities, we conduct next-generation research and handle purchase and sale of chemicals etc.



# Contributing to Society by Creating Materials for Tomorrow

Using the power of chemistry, JSR Group is continually exploring the possibilities of existing materials and potential applications for new materials. Our mission is to contribute to social good by supplying materials to serve future generations and providing new value today for our customers and society.

<1960s>

### Launching Synthetic Rubber Production in Japan

In 1957, JSR was established as a statutory company. In April 1960, JSR successfully launched styrene-butadiene rubber (SBR) production at its plant in Yokkaichi, Mie Prefecture. In the years that followed, the company introduced various other types of synthetic rubber and became the leading rubber manufacturer in Japan. In 1969, it became a private company.



INITIAL PHASE

1970s

<1970s>

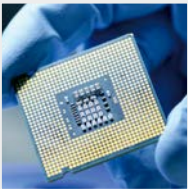
### Surviving a Deep Slump

Crude oil prices soared as a result of two oil crises. Demand fell as the export competitiveness of synthetic rubber was eroded by the rapidly rising value of the yen. JSR responded by improving energy efficiency in the company's plants and centralizing production. We also began to diversify the business portfolio.

<1980s>

### Creating New Businesses

In 1981, JSR entered into the electronic materials field, which allowed us to expand with the rapidly growing IT sector by supplying new materials. This supported diversification away from a business structure that heavily depended on the petrochemical product business. Parallel to this, we aimed at enhancing the added value of our petrochemical products.



ACCELERATED DIVERSIFICATION PHASE

1980s

EXPLORATORY DIVERSIFICATION PHASE

<1990s>

### Building a Global Production Structure

Amidst the trend toward borderless markets and rising competition from Asian emerging countries, JSR invested more heavily in its electronic materials business. New photoresist plants in Europe and North America created a three-region production structure. We also established production capacity for display materials in Japan, South Korea and Taiwan. In 1997, the company name was changed from "Japan Synthetic Rubber Corporation" to "JSR Corporation."

<2000s>

### Expansion of Fine Chemicals Business

JSR significantly increased its presence in global markets through collaboration with leading manufacturers. The business structure was transformed by expanding the fine chemicals, mainly in materials for semiconductors and display panels.

2000s

BUSINESS ENHANCEMENT PHASE

ACTIVATION TOWARD GROWTH

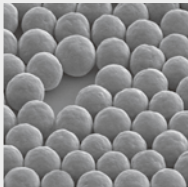
2010s

<2010s>

### Aiming for Sustainable Growth

We have embarked on a three-stage series of mid-term plans to realize our vision for 2020. The JSR20i3\* three-year mid-term business plan, launched in 2011, aimed to extend earlier progress by differentiating the petrochemical products business and fine chemicals business while also nurturing and investing in the life sciences and environment and energy as strategic businesses.

PROGRESS OF GLOBALIZATION



<2014>

### Leading to Results

The JSR20i6\* three-year mid-term business plan launched in 2014, following up on the results achieved from the JSR20i3\*. During the JSR20i6\*, we progressed in the globalization of our solution polymerization styrene-butadiene rubber (elastomers business) for fuel-efficient tires and our semiconductor and display materials businesses. We also established our life sciences business as a new pillar alongside our petrochemical products business and our fine chemicals business.

2014

SUSTAINABLE GROWTH



2017

<2017>

### Strengthening Our Competitiveness for the Future

We launched a new three-year mid-term business plan, JSR20i9\*, in April 2017. We firmly established our SSBR, semiconductor materials and life sciences businesses as our three pillars to drive earnings and promote profit expansion. We also focused on improving productivity and competitiveness through digitalization and innovation.

2020s

In 1957, Japan was finishing postwar reconstruction and starting a period of high economic growth. Petrochemical products were essential for industrial development. JSR Corporation (formerly Japan Synthetic Rubber Co., Ltd.) was established due to a national policy to pioneer synthetic rubber production in Japan. We later applied our polymer technologies in the fine chemicals sector to produce semiconductor materials, display materials, and other products. JSR is currently taking up the challenge of Materials Innovation applicable in new fields such as the life sciences that make use of the acquired technologies in the fine chemicals sector. These are under development as future JSR core businesses.

\* 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.



# We Pursue the Challenge of Innovation with Focus on the Society of Tomorrow

Message from Top Executives

## Transforming our business structure with a pioneering approach to advanced technology

When JSR was established in 1957 as Japan Synthetic Rubber Co., Ltd., its mission was to launch synthetic rubber manufacturing in Japan. Since then our business domain has grown to include other areas, such as emulsions, synthetic resins, semiconductor materials, and display materials, all using pioneering advanced technology. Based on the foundation of our original technologies, we are transforming our business structure and fulfilling social needs by combining our global group capabilities with our technologies and human resources, which were cultivated through the development of petrochemical products and the fine chemicals businesses.

## Through activities that support our corporate mission, we are helping to create a sustainable society

We are committed to pursuing the vast potential represented by innovative materials. This is how we create value and contribute to society, true to our corporate mission—“Materials Innovation—We create value through materials to enrich society, people and the environment.”

## JSR Materials Innovation continues to respond to changes in social needs

JSR Group’s materials are used to produce a vast range of everyday products including materials for tires, home electronics, microchips and display panels. Today we are also involved strategically in new businesses that aim to respond to society’s deeper needs in the life sciences field. We continue to use Materials Innovation to address challenges in the global human community.



Representative Director, CEO  
**Eric Johnson**

A stylized white signature of Eric Johnson on a dark blue background.

Representative Director, President, COO  
**Nobuo Kawahashi**

A stylized white signature of Nobuo Kawahashi on a dark blue background.



# THE JSR VISION

Under our mid-term business plan "JSR 20i9<sup>\*1</sup>" launched in April 2017, we have implemented initiatives throughout a three-year period to improve the future competitiveness and establish achievable, sustainable reforms by 2020. Beyond JSR 20i9, we will focus on establishing a resilient system to adapt to dynamically changing environments. To do so, we will enhance our corporate value by incorporating the concept of sustainability into our business strategies to create values for all stakeholders.

## Achievements of JSR20i9 by Business Area

### Elastomers Business

- Solution polymerization SBR (SSBR): Expanded global sales.  
Completed JSR MOL Synthetic Rubber Ltd., a production plant in Hungary and established a supply-chain system from three global locations.

### Plastics Business

- Established Techno UMG Co., Ltd., completed organizational integration and expanded sales of high-performance products in global markets.

### Digital Solutions Business

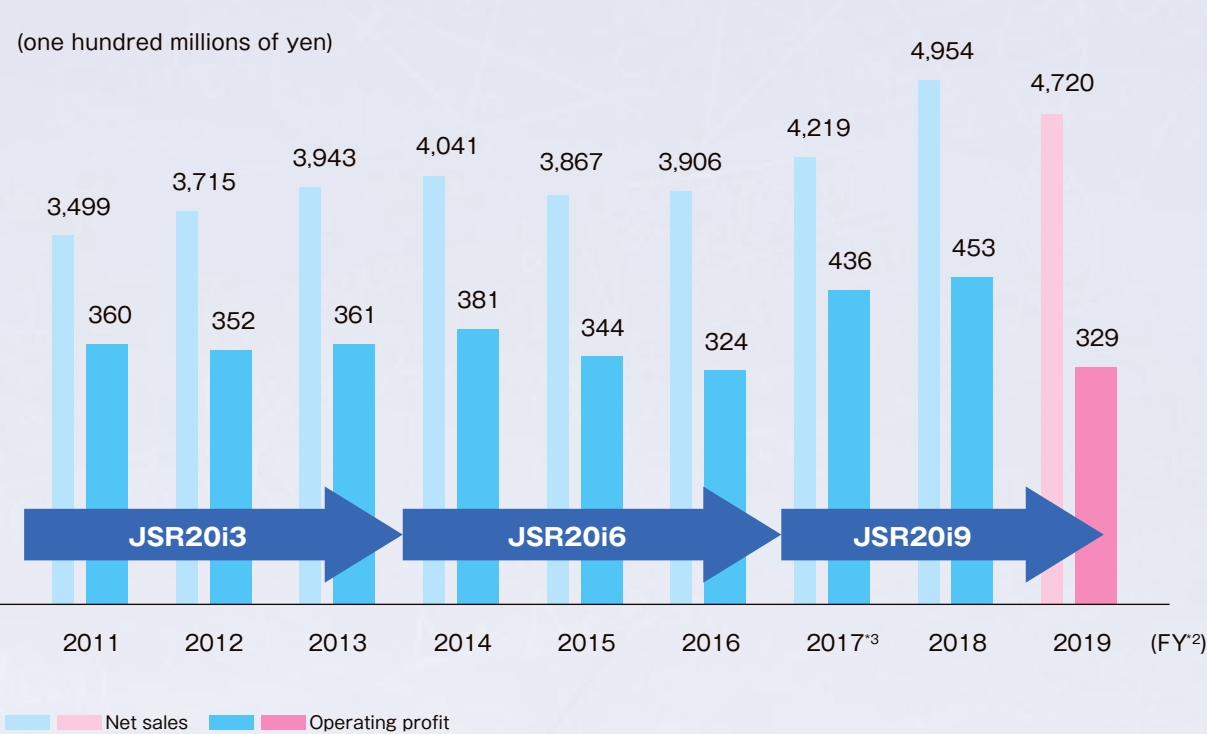
- Semiconductors Materials: Expanded sales of leading-edge lithography materials and began supplying of EUV lithography materials.  
Expanded sales of peripheral materials such as CMP materials, packaging materials and advanced cleans solutions.
- Display Materials: Expanded sales of alignment and insulating films in the Chinese market where demand is growing significantly.

### Life Sciences Business

- Achieved sales revenue of 50 billion yen and became a strategic 3rd pillar. Built an integrated system that supports processes from drug discovery through manufacturing.

### Measures for Digitalization

- To promote digital transformation of R&D based on material informatics, we are actively incorporating various simulation technologies and machine learning. At our plants, we are promoting the "smart industrial complex" which utilizes digital technology to formalize and utilize the skills and know-how of skilled technicians.
- We are focusing on cultivating data scientists with a focus on research, not only improving efficiency but also creating true business values.  
We also aim to create new businesses in the future.



Phase I

# JSR20i3<sup>\*1</sup>

### Results of JSR20i3

- Clarification of the strategy toward growth
- Decisions on resource investment

Phase II

# JSR20i6<sup>\*1</sup>

### Results of JSR20i6

- Progress of globalization
- Restructuring of the strategic business and focusing on the life sciences business

Phase III

# JSR20i9<sup>\*1</sup>

### Result of JSR20i9

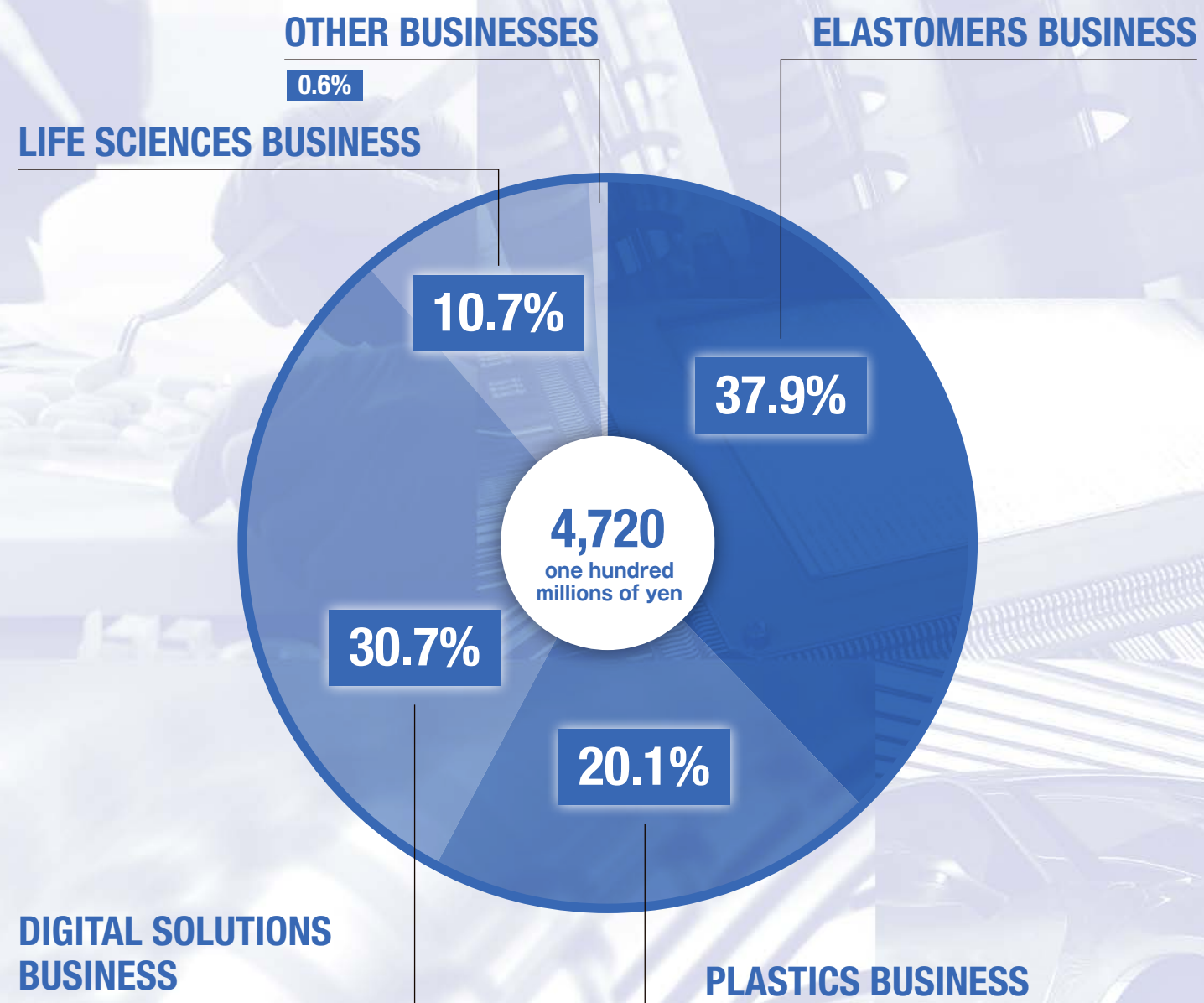
- Solid earnings growth by SSBR, semiconductors materials and the life sciences business
- Deepening measures for digitalization

We will achieve sustainable growth to fulfill our responsibility to all our stakeholders

<sup>\*1</sup> 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.  
<sup>\*2</sup> Fiscal year ends in March  
<sup>\*3</sup> IFRS (International Accounting Standard) has been applied from FY2017.

## JSR Group Materials

JSR Group materials are used for producing a wide variety of products. We will focus our accumulated resources, including our technology, our people and our global group capabilities, on the creation of materials that can produce new value while contributing to society's needs.



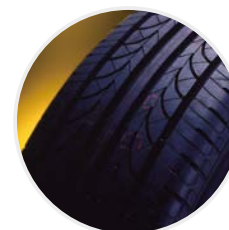
Revenue Breakdown by Business Segment (FY2019)

## ELASTOMERS BUSINESS

### | Elastomers |

As an integrated manufacturer of synthetic rubber, we offer a line-up of global standard products

Since creating the first Japanese-made synthetic rubber in 1960, JSR has supplied an extensive range of products to serve the expansion of society and industry. As a synthetic rubber manufacturer, we provide rubber and plastic products ranging from tire rubber to thermoplastic elastomers to enhance the quality of daily living. We also aim to become a world-leading company in solution polymerization styrene-butadiene rubber (SSBR) for fuel-efficient tires. (\*1)



### General-purpose Synthetic Rubber

SSBR's special molecular structure imparts good workability and dynamic performance for fuel-efficient and high-performance tires. ESBR has excellent tensile strength, tear resistance and abrasion resistance. It is used for the tread portion of car tires and other applications. Polybutadiene rubber (BR) has good low-temperature properties and high repulsion elasticity and is used as the feedstock for heavy-vehicle tires and golf balls. JSR also supplies rubber products for medical applications.



### Special-purpose Synthetic Rubber

Nitrile rubber (NBR) is highly resistant to heat, oil, and abrasion in applications such as automobile fuel hoses, seals, and rubber rollers, among others. Ethylene propylene rubbers including EPM and EPDM are used for automobile seal and hoses, electrical wires, thermal belts, water proofing sheets, modifiers of synthetic resins, and other applications. Butyl rubber (IIR) has outstanding gas impermeability and is used for inner tires, liners and medical applications.



### Thermoplastic Elastomers (Butadiene Type/Styrene Type)

JSR RB™ is a syndiotactic 1, 2-polybutadiene developed with unique technology. It is used worldwide for various applications such as shoe soles, medical tubes and films. JSR TR/SIS is styrenic thermoplastic elastomers which is used as a resin modifier for asphalt, adhesives and flexible printing plates. JSR DYNARON™ is a hydrogenated polymer with a unique molecular structure used as a protective film because of its superior compatibility and adhesion with polyolefin.



### Thermoplastic Elastomers (Olefin Type)

The olefin-type thermoplastic elastomer, JSR EXCELINK™, has strength and elasticity comparable to vulcanized rubber but with the same excellent workability of thermoplastic resin. It is used in place of vulcanized rubber in automobiles, appliances, electronics, and other products. This is an energy and resource-conserving, environment-friendly material that can be recycled.



(\*1) The elastomers business operates as a coalition of Group companies including ELASTOMIX CO., LTD. and JSR Trading Co., Ltd.



# ELASTOMERS BUSINESS

| Emulsions |

Our high-performance chemical materials are based on advanced technology and experience

JSR Group supplies a wide range of special functional products such as styrene butadiene (SB) latex and acrylic emulsions based on our production technology for synthetic rubber. In addition, we are making use of our technology and experience in the fine chemicals fields to provide materials to enhance comfort in a variety of living spaces. <sup>(\*)</sup>



## SB LATEX and PCL

Styrene-butadiene (SB) latex comes in a wide line-up of grades with different properties. A leading product in the emulsions business is paper coating latex (PCL). Its strong adhesion and excellent printability meet the needs of a wide range of applications, including paper coating and paint for magazines, catalogs, wrapping paper, and other types of coated paper. In addition, it is widely used as an industrial adhesive and foam rubber for bedding, shoe soles, cosmetic applicators, etc.



## Binders for Batteries

JSR has developed a binder for secondary batteries with advanced emulsion synthesis technologies. JSR binder is an indispensable material for manufacturing the electrode of lithium ion batteries and nickel hydrogen batteries which are used in today's smartphones, PCs, electric vehicles and more and has features of good binding properties, excellent battery performance and high reliability. Unlike conventional solvent-based binders (PVDF), it is a water-based binder that is environmentally friendly and cost-effective.



## High-performance Acrylic Emulsions

High-performance acrylic emulsion (AE) products originated from the fusion of our synthetic and compounding technology for water-based polymers which are cultivated in the fields of adhesives and floor-polishes. AE-foam (SOFRYL™) products feature extraordinary softness compared to conventional foam materials and have been used in many applications including sound-absorbing materials for vehicles, back-coating on self-adhesive tile carpets and other adsorption uses for flooring. Other applications are under examination such as, cushioning sheets for mobile electronic equipment and vibration absorbing materials for musical instruments. Showing excellent water resistance, the new adhesive series AQUATRAN™ is expected to apply to various applications such as a paste for olefin base materials and plastic tape for outdoor use.



## SIFCLEAR™ Water-based Emulsion with Excellent Durability and Stain Resistance

A modified aqueous emulsion obtained by alloying a vinylidene-fluoride polymer with an acrylic polymer at the molecular level, the SIFCLEAR™ series has been used as a binder resin for waterborne construction paint for exterior walls and roofing, owing to its excellent durability and stain resistance to outdoor exposure. In thermal insulation paints, SIFCLEAR™ series creates a long-term thermal barrier and its outstanding stain resistance prevents various outdoor stains from compromising its heat reflecting properties. The applications of SIFCLEAR™ continue to expand into water-based paint systems used in construction and thick anticorrosion coating materials (plants, bridges, piers, and port facilities). Additional applications for anti-staining films and resin-coatings are also expected.



(\*) The emulsions business operates as a coalition of Group companies including Emulsion Technology, Co., Ltd. and JSR Trading Co., Ltd.

# PLASTICS BUSINESS

| ABS and others |

Plastics with unique features created by a flexible product design technology

JSR Group ABS resins are created using technologies that respond to diverse needs and have unique features that combine multiple characteristics. We are also working to design new plastics and parts, including the development of materials that eliminate the need for painting and products with high secondary workability. We provide these highly-stable, high-quality, value-added products to customers around the world. <sup>(\*)</sup>



## General, Special and Weather-resistant Grade (ABS, AES, ASA)

A wide range of grades including high-impact resistant, high fluidity, heat resistant, high rigidity and weather-resistant types are available. Heat resistant grade ABS also has outstanding impact resistance and workability. It is widely used for auto parts and electrical appliances. Weather-resistant grade (including the DIALAC™ series) has a high level of weather resistance and workability and are used extensively for auto parts and building materials.



## 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 are permanent for the lifetime of the product.



## PLATZON™ Plating Material

Harnessing our proprietary polymer technology honed over many years of global development, we developed PC/ABS and heat-resistant ABS materials capable of standing up to a wide range of production conditions (molding and etching temperature/duration conditions) for an extremely wide range of finished products. These materials maximize productivity during the production process and also help reduce environmental impacts because of improved plating yields.



## 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.



(\*) The plastics business operates as a coalition of Group companies including Techno-UMG Co., Ltd.

# DIGITAL SOLUTIONS BUSINESS

## | Semiconductor Materials |

We aim to become a leader in the global market by supporting smaller design features and high-density integration of advanced semiconductor devices

Semiconductor manufacturing requires a variety of high-performance materials for the formation of integrated circuits and high-density packaging. JSR Group offers a comprehensive range of these materials and meets the needs of global, leading-edge semiconductor manufacturers. <sup>(\*1)</sup>



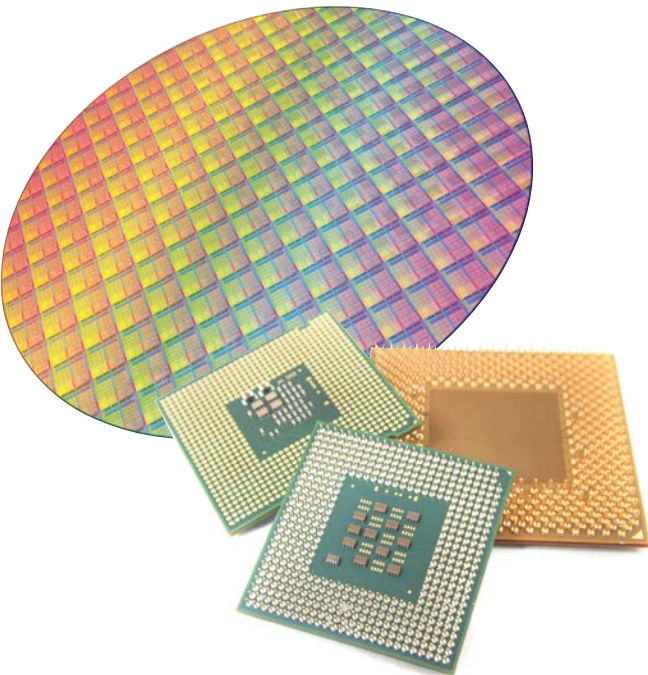
### Lithography Materials

In the rapidly advancing world of integrated circuits, there is constant demand for high-quality materials for IC manufacturing. JSR offers a wide range of cutting-edge products catering to this demand, including high-resolution photoresists for KrF (248nm), ArF (193nm), EUV (13.5nm), and top-coat materials for immersion lithography and spin-on hardmask materials.



### Device Integration Materials

JSR develops materials for the high performance and reliability requirements of packaging systems for high density and 3D electronic devices. JSR provides photoresists with high chemical resistance to form thick bumps and fine redistribution layers and insulation materials with high reliability and low transmission loss materials for high speed 5G communication.



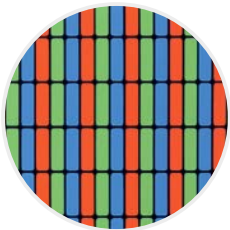
### CMP Materials and Process Materials

Chemical mechanical planarization (CMP), which polishes surfaces of thin films for wiring and insulating layers, is indispensable to the formation of multilayer interconnections in IC manufacturing. JSR supplies slurries that support the polishing of various thin films having high planarity and low scratch characteristics. We also supply post-CMP cleaning solutions to remove impurities such as metal, organic and slurry residues from planarized surfaces. In addition, JSR supplies a variety of proprietary process materials for the next-generation semiconductor production.

## | Display Materials | | Edge Computing Related Items |

We are the world leader in materials that support the evolution of the display market and ICT (Information and Communication Technology) devices.

JSR Group supplies a variety of materials, from those used in LCD televisions, PCs and smartphones, to those corresponding to technical innovations including ICT, AI and advanced mobile devices. We will continue to respond with materials to meet market needs created by trends toward higher image resolution, reduced weight and lower power consumption. <sup>(\*1)</sup>



### LCD Materials

LCD panels are composed of numerous layers made of high-performance materials, and JSR Group is involved in the manufacture of many of these materials. These include OPTMER™ AL, an alignment film that orders the arrays of liquid crystal, OPTMER™ CR, a colored resist material that is used to display color, OPTMER™ SS, a protective film, and OPTMER™ NN/PC, a photosensitive transparent organic film.

### OLED Materials

JSR provides insulating and planarization materials for organic electroluminescent displays (OLED). Pigment-dispersed photoresists and insulating materials have been adopted for color filters used for W-OLED. Additionally, JSR is supplying new materials to meet future customer needs, such as insulation materials for low-temperature processing of on-cell touch sensors and related materials for circularly polarizing plates.



### Heat Resistant Transparent ARTON™

ARTON™ is a transparent resin (cyclic olefin resin), which has optimized optical properties, dimensional stability and heat resistance. It is a high-performance resin for optical applications such as optical films, filters and lenses. Although ARTON™ is a cyclic olefin resin, it has a polar group in its molecular chain giving it good adhesion, adherence and miscibility.

### Stereolithography Systems <sup>(\*2)</sup>

A 3D printing system for industry. Three-dimensional objects are prepared as slices in CAD, and the corresponding patterns are then used to build layers of UV-curable resin with a UV laser beam. A stereolithography system repeats these steps to quickly produce an extremely precise, three-dimensional object made of resin with excellent transparency, heat resistance and mechanical properties.



<sup>(\*1)</sup>The semiconductor materials business operates as a coalition of Group companies including JSR Micro, Inc., JSR Micro N.V. and JSR Micro Kyushu Co., Ltd.

<sup>(\*1)</sup>The display materials business operates as a coalition of Group companies such as JSR Micro Korea Co., Ltd., JSR (Shanghai) Co., Ltd. and JSR Micro Taiwan Co., Ltd.  
<sup>(\*2)</sup>Stereolithography systems is managed by D-MEC LTD., a member of JSR Group.



# LIFE SCIENCES BUSINESS

## | Drug Discovery and Development Services |

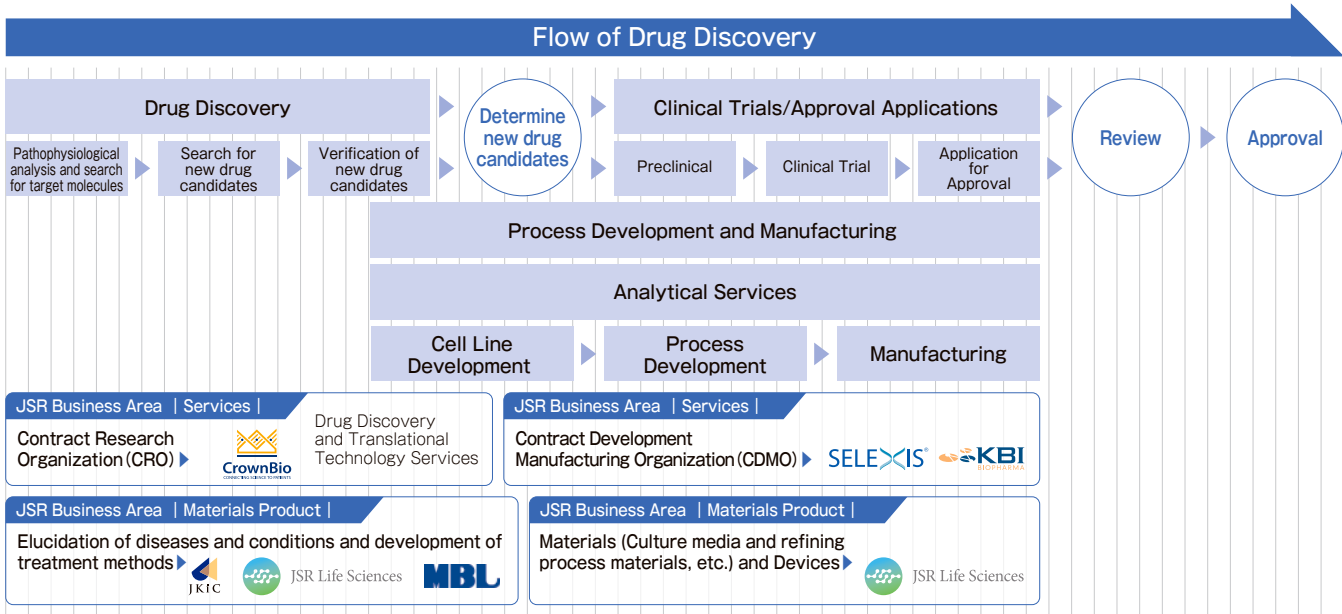
We bring innovation to healthcare by exploring the potential of services and materials

We will contribute to innovations in the drug development process mainly through a system that supports the entire process from discovery to development to production of drug therapies.

### Drug Discovery and Development Services

Two major challenges in the medical field are to extend healthy life expectancy and to control the expansion of medical costs. To this end, the concept of "personalized medicine" and "the shift from treatment to prevention" has become important. The JSR Group is developing its business with two focus areas : research & diagnostics area to support academic and commercial drug discovery and diagnostic-focused institutions, and bioprocess area for biopharmaceutical companies.

The JSR Group companies include Crown Bioscience, a contract research and translational technology company, MBL, a developer and manufacturer of life science research products and clinical diagnostics, Selexis, a leader in cell line development, and KBI, a contract development and manufacturing organization. All the JSR Group Life Sciences affiliate companies work together to enable a global, coherent support network from drug discovery to manufacturing. Through this series of drug discovery and development support services, we will contribute to increase the probability of successful drug development and shortening the development timeline.



## | Bioprocess Products | | Research & Diagnostics Products |

We contribute to medical fields by applying JSR's polymer technology

We will contribute to the efficient development and production of biopharmaceuticals, such as antibody drugs, using bioprocess products and research & diagnostics products. Our products will also support more advanced diagnosis and preventive medicine.



### Bioprocess Products

JSR Group combines technologies of precision polymer synthesis, surface modification, and genetic engineering to develop materials for use in biopharmaceutical manufacturing processes. We supply protein A affinity chromatography resin, Amsphere™, which is used in downstream processing to refine antibody drugs.



### Research & Diagnostics Products

JSR Group supplies research reagents to isolate and purify target biological materials such as proteins, nucleic acids and cells and in vitro diagnostic reagents to diagnose diseases, which is key for the future of personalized medicine. Our products include Magnosphere™ magnetic microparticles, IMMUTEX™ latex particles for immunodiagnostic reagents and our blocking reagent Blockmaster™.



## Life Sciences Group Companies



### Crown Bioscience, Inc.

CRO

Drug discovery and development services including translational platforms to advance oncology, inflammation, cardiovascular and metabolic disease research



### KBI Biopharma, Inc.

CDMO

Microbial and mammalian, clinical and commercial biopharmaceutical contract development and manufacturing services



### JSR Life Sciences, LLC

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



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

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



### MEDICAL & BIOLOGICAL LABORATORIES CO., LTD.

CRO

R&D, manufacture and sales of diagnostic and research reagents



### Selexis SA

CDMO

Development of clonal cell lines used to express proteins and antibodies for the discovery, development and manufacturing of biologic therapies and vaccines



### JSR Life Sciences Corporation

Manufacture of biopharma related materials, including protein A chromatography resins used in the purification process of antibody drugs



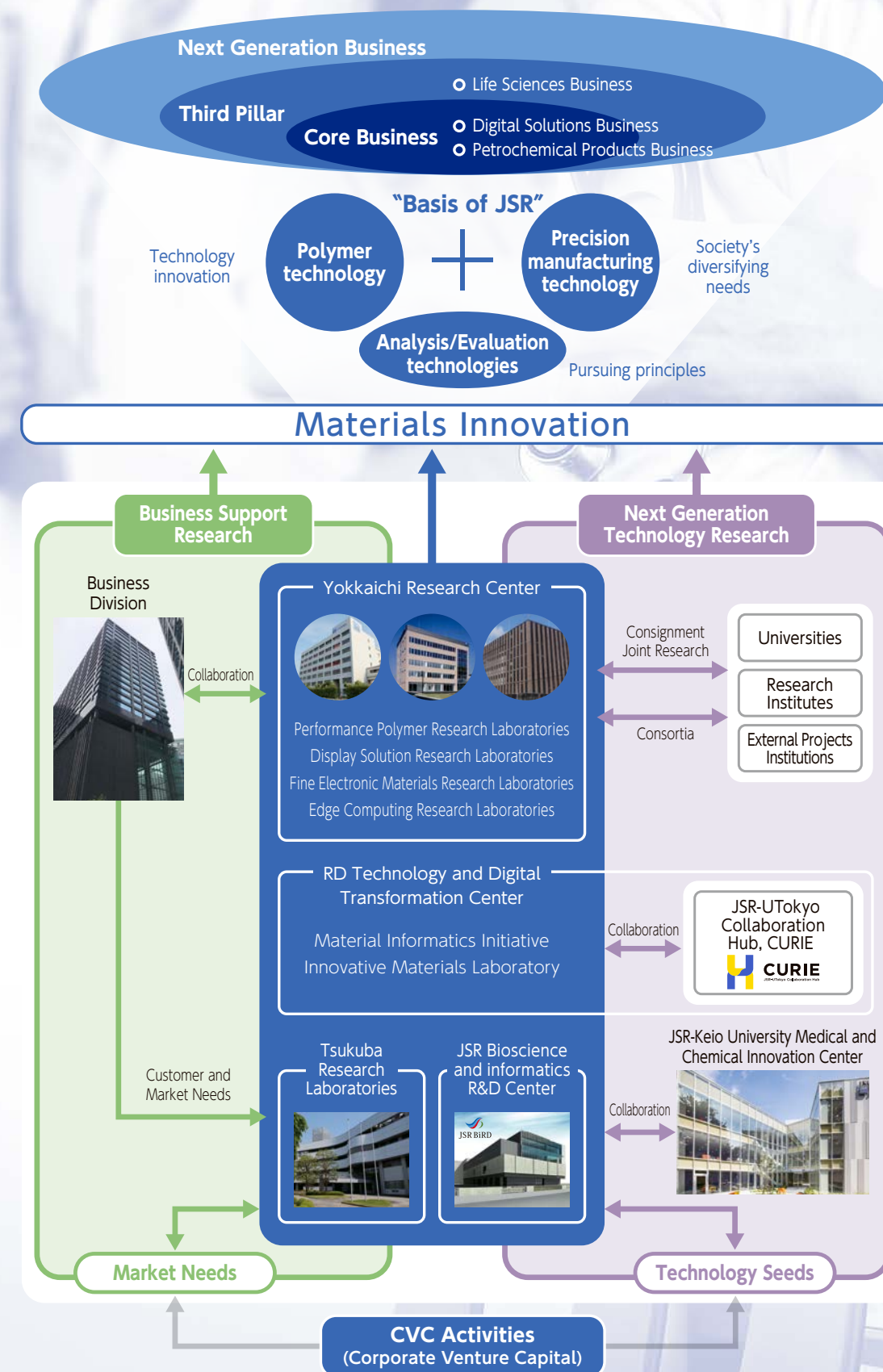
## Creating Materials for the Future through Materials Innovation

With deep expertise in its core polymer and precision manufacturing technologies, the JSR Group has widened the scope of its technological domains by integrating technologies from disparate fields such as photochemistry, inorganic chemistry, precision processing and biotechnologies. Also, it is important for us to understand and pursue fundamental principles, including in-depth research into analysis and evaluation technologies. On this basis, the Group has advanced R&D activities, and the accumulated efforts have enabled it to develop unique strengths relative to chemical companies worldwide, which is our driving force to expand our materials and technologies globally.



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 the business fields that are currently being developed and to conduct new or applied research in peripheral areas, “next-generation technology research”, such as seeds research where future growth is expected.

In promoting business support research, we focus on supporting market development, process development, manufacturing technology 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.

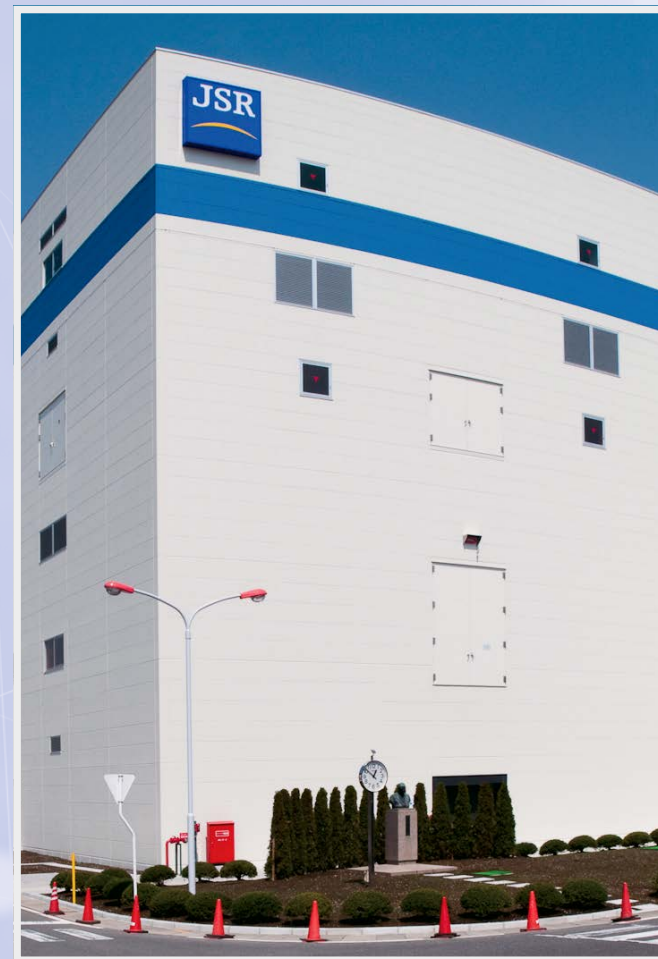


Regarding next-generation technology research such as seeds research, we are working on research and development that anticipates the potential needs of the market. In June 2020, we reorganized R&D divisions and created a “RD Technology Digital Transformation Center” to accelerate transformation. Especially 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 the University of Tokyo, Graduate School of Science, Department of Physics, 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.



## JSR is Dedicated to the Continuing Creation of Excellent Products

Proprietary polymer technology and precision manufacturing technology are key to the development and manufacture of new products at JSR production sites. In addition, we also work to improve reliability and ensure that only the highest quality products are supplied to customers through extensive quality control standards and management systems at every production site and at all stages, from R&D to production.



### Production Technologies / Process Development

#### Essential high-level technologies for all of our business domains

Once our researchers have developed new materials, our production technology group takes over the commercial manufacturing process, taking it from the research laboratory to the manufacturing facility. The key requirements at this stage are not only to produce capability and quality, but also to ensure low manufacturing cost through safe and simple processes. Our laboratories generate materials with amazing properties, but those materials will not be accepted by the market unless they can also be produced reliably and economically. An outstanding material in the laboratory may often fail to work properly at the commercial production stage. Our approach to competitiveness is not only to enhance our advantage in terms of technology and performance, but also to balance reliable product performance and profitability. We capture the business opportunities of newly developed materials by combining optimal processes, facilities, and R&D results.

### Production

#### We ensure high-quality materials in safe, environment-friendly plants

As a supplier of materials, we have a responsibility to stably supply newly developed materials. JSR Group's major plants in Japan are the Yokkaichi Plant (Yokkaichi City in Mie Prefecture), the Chiba Plant (Ichihara City in Chiba Prefecture), and around the Kashima Plant (Kamisu City in Ibaraki Prefecture). Also, there are production operations in other cities of Japan and various countries in the world to support market and customers' requirements. Safety, environmental conservation and high-quality products are our priorities. With these as a constant focus, we develop our processes to maintain consistent, reliable operations. Also, JSR proactively promotes Responsible Care activities and consistently implements and improves measures related to safety, health and the environment.

The Technical Departments are in charge of improving these manufacturing technologies daily by detecting and solving overt problems during the production process. All JSR plants have acquired ISO 9001 and 14001 of the Quality and Environmental Management System certification and are working to ensure a stable supply of products and to continuously improve production activities.



# Based on our corporate mission, we contribute to the sustainability of the earth's environment and society by creating value through corporate activities.

## Corporate Mission

# MATERIALS INNOVATION

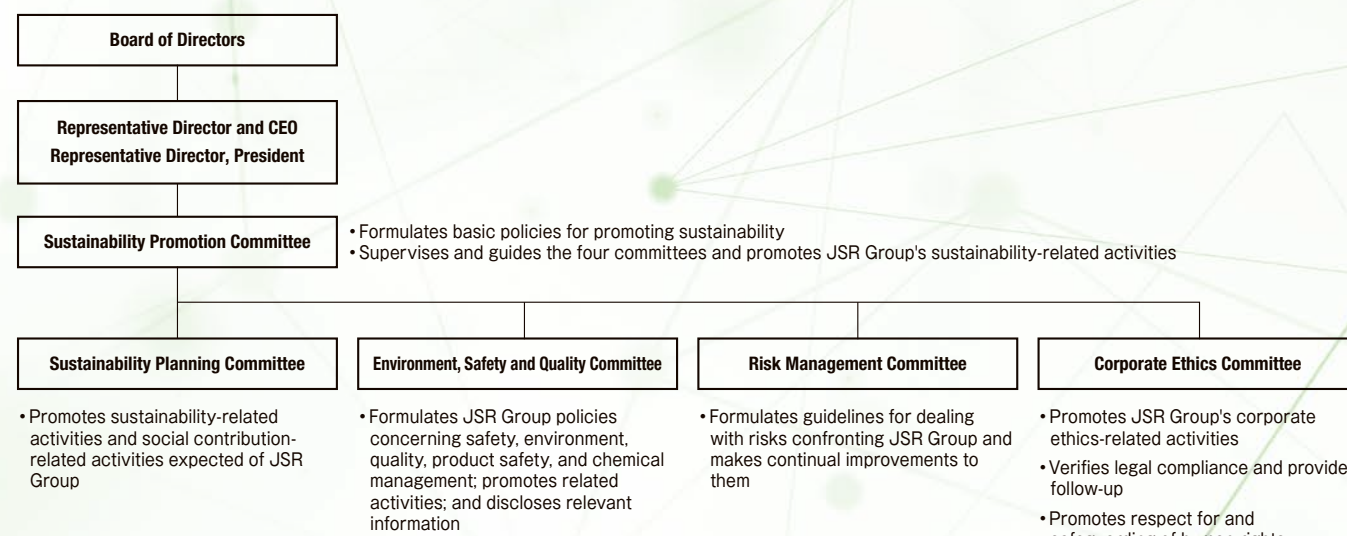
We create value through materials to enrich society, people and the environment

## 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 continued growth. The second is "Responsibility to Our Stakeholders" which are an expression of our responsibilities as a good corporate citizen.

Fundamental Pillars of Management | ●Continuous Creation of Businesses ●Enhancement of Corporate Culture ●Increase Corporate Value  
 Responsibility to Our Stakeholders | ●Responsibility to Our Customers/Business Partners ●Responsibility to Our Employees  
 ●Responsibility to Society ●Responsibility to Shareholders

## Sustainability Advancement Structure



## Our Responsibilities to Customers and Business Partners

We believe that JSR Group's most important role is to offer innovative materials and excellent products that meet customer needs and contribute to a better society. We focus on ensuring the quality and safety of our products so that our customers can use them with confidence. These efforts have been recognized, and we have received top-rank supplier awards from global customers. Through communication with our business partners, we are simultaneously improving the business activities of the JSR Group.

## Our Responsibilities to Employees

JSR Group develops mechanisms and fosters a corporate culture that enables all employees to accurately recognize and solve issues and to improve organizational capabilities. Moreover, we encourage whole new ways of working and are directing our energies into initiatives to improve productivity. On a different front, we have put a JSR Group global personnel system into place and are pursuing human resource development and management at the global level. Throughout JSR Group, synergies are generated through the contributions of a diverse workforce.

## Our Responsibilities to Society

Through Responsible Care (RC) activities, JSR Group strives to ensure safety and high environmental standards through autonomous initiatives at all stages from the development of chemical substances through to manufacturing, distribution, utilization, final consumption, and disposal, with particular emphasis on our production facilities. We are also committed to dialog and communication with society, and we publish the results of our efforts to identify improvements in safety, health, and the environment. JSR Group contributes to the establishment of a sustainable society by identifying how our business activities depend on and impact biodiversity and natural capital and by reducing our footprint on the global environment. While we continue our efforts to reduce environmental risks,

such as reducing greenhouse gas emissions at our plants, we are also working to create new business opportunities, such as the development of eco-friendly products, with the aim of creating sustainable value for the company and society. Moreover, we are focusing on procuring eco-friendly raw materials and equipment and the development of green areas at our business sites, while at the same time emphasizing staff engagement and cooperation with local communities.

## Our Responsibilities to Shareholders

Through our IR activities, we work hard to ensure that shareholders and investors are promptly informed about our business situation and corporate policies. To facilitate the exercise of shareholders' voting rights, we convene ordinary general meetings of shareholders early so as to avoid the heaviest-scheduled dates, and send out convocation notices well in advance of meeting dates. We have also introduced a system that allows shareholders to vote via the Internet. Our wide-ranging communication activities also include quarterly briefings on our financial results and seminars for institutional investors and analysts (including technical seminars).

### Participant in the United Nations Global Compact

On April 14, 2009, JSR Group became a participant in the United Nations Global Compact. Amid growing calls for corporate social responsibility, the Global Compact enables companies that operate on a worldwide level to declare their commitment to observing the Compact's ten principles. The principles include human rights, labor, the environment, and anti-corruption. Having declared its participation in the Global Compact and its commitment to act responsibly as a member of the international community, JSR Group will work even harder to actively fulfill its social responsibilities.



[www.unglobalcompact.org](http://www.unglobalcompact.org)

## The Sustainable Development Goals (SDGs)

In September 2015, the United Nations adopted the "Sustainable Development Goals (SDGs)" which consists of 17 goals and 169 targets for the prosperity of human beings and the earth. In addition to conventional development goals, such as eliminating extreme poverty and hunger, there are also challenges facing developed countries, such as gender equality, creating a good employment environment, reviewing production and consumption, mitigating climate change, protecting resources, and building safe communities. The JSR Group will contribute to the realization of the SDGs by creating value through its corporate activities.



Details can be found on the JSR Sustainability website.

### SUSTAINABLE DEVELOPMENT GOALS



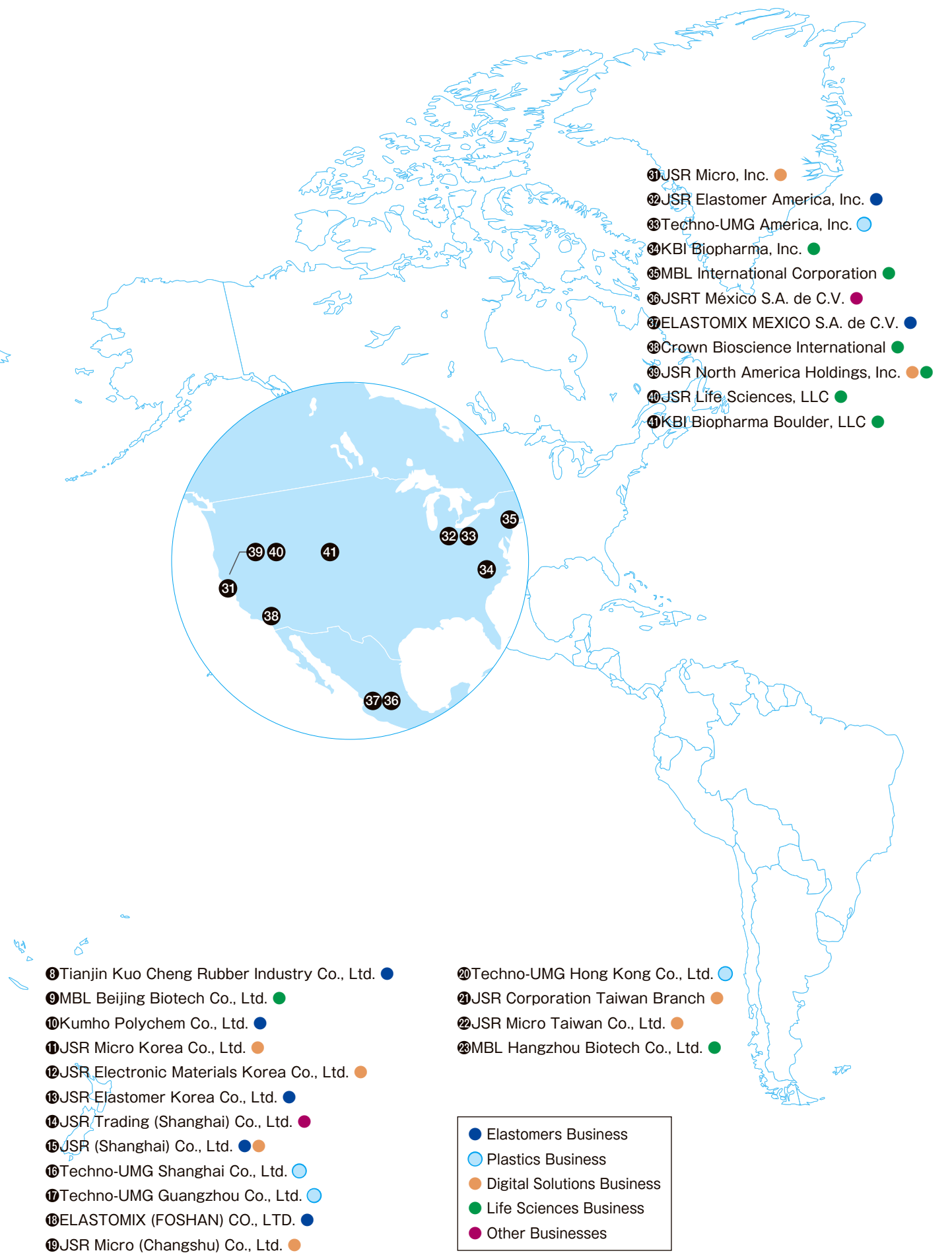
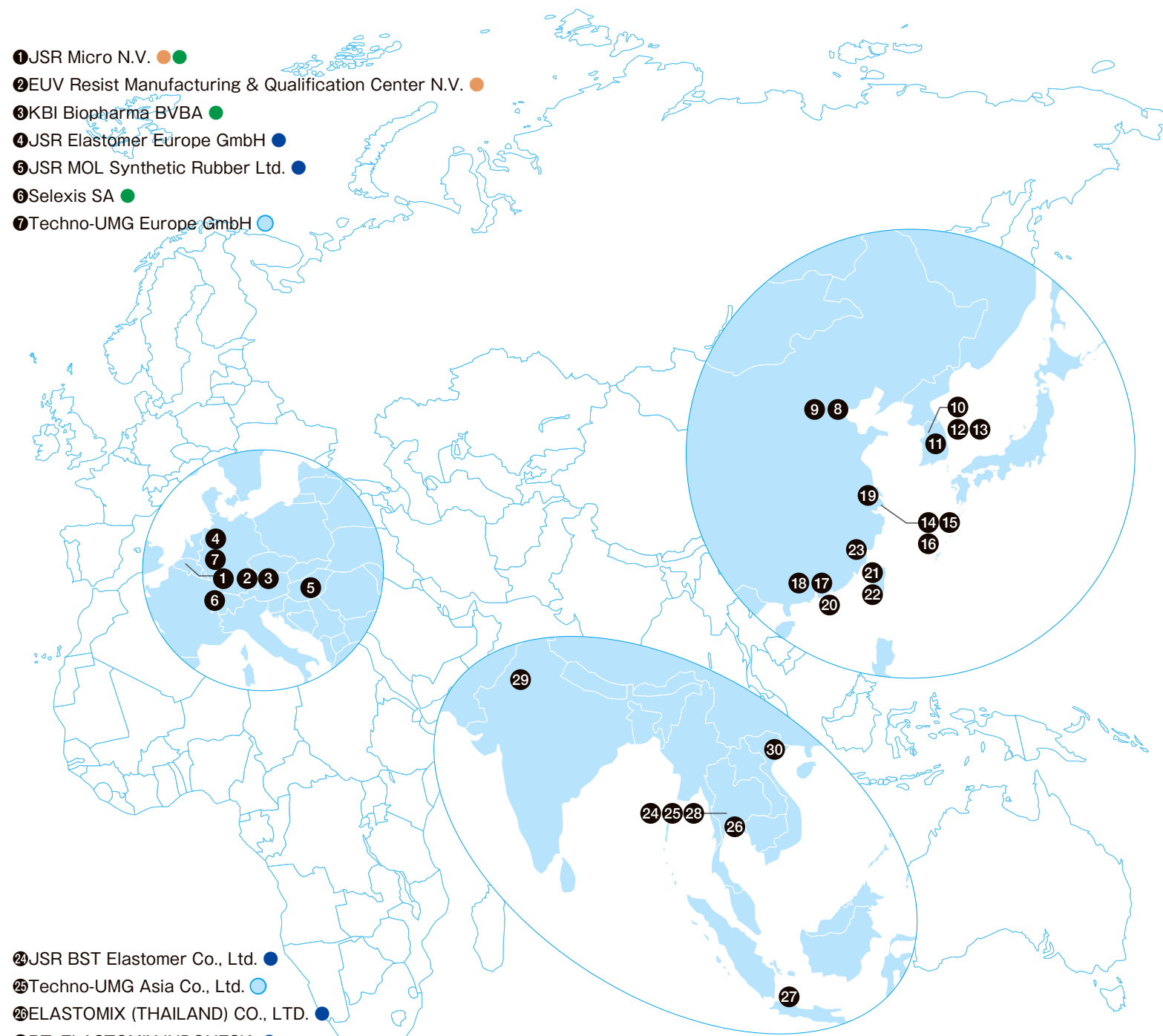


## JSR Group is building its business activities on a global scale through its 41 overseas business sites.

[ As of July 31, 2020 ]

- ① JSR Micro N.V. ●●
- ② EUV Resist Manufacturing & Qualification Center N.V. ●
- ③ KBI Biopharma BVBA ●
- ④ JSR Elastomer Europe GmbH ●
- ⑤ JSR MOL Synthetic Rubber Ltd. ●
- ⑥ Selexis SA ●
- ⑦ Techno-UMG Europe GmbH ●

- ②④ JSR BST Elastomer Co., Ltd. ●
- ②⑤ Techno-UMG Asia Co., Ltd. ●
- ②⑥ ELASTOMIX (THAILAND) CO., LTD. ●
- ②⑦ PT. ELASTOMIX INDONESIA ●
- ②⑧ JSR Trading Bangkok Co., Ltd. ●
- ②⑨ JSR Elastomer India Private Limited ●
- ③⑩ JSR Trading Vietnam Co., Ltd. ●



- ⑧ Tianjin Kuo Cheng Rubber Industry Co., Ltd. ●
- ⑨ MBL Beijing Biotech Co., Ltd. ●
- ⑩ Kumho Polychem Co., Ltd. ●
- ⑪ JSR Micro Korea Co., Ltd. ●
- ⑫ JSR Electronic Materials Korea Co., Ltd. ●
- ⑬ JSR Elastomer Korea Co., Ltd. ●
- ⑭ JSR Trading (Shanghai) Co., Ltd. ●
- ⑮ JSR (Shanghai) Co., Ltd. ●●
- ⑯ Techno-UMG Shanghai Co., Ltd. ●
- ⑰ Techno-UMG Guangzhou Co., Ltd. ●
- ⑱ ELASTOMIX (FOSHAN) CO., LTD. ●
- ⑲ JSR Micro (Changshu) Co., Ltd. ●

- ⑳ Techno-UMG Hong Kong Co., Ltd. ●
- ㉑ JSR Corporation Taiwan Branch ●
- ㉒ JSR Micro Taiwan Co., Ltd. ●
- ㉓ MBL Hangzhou Biotech Co., Ltd. ●

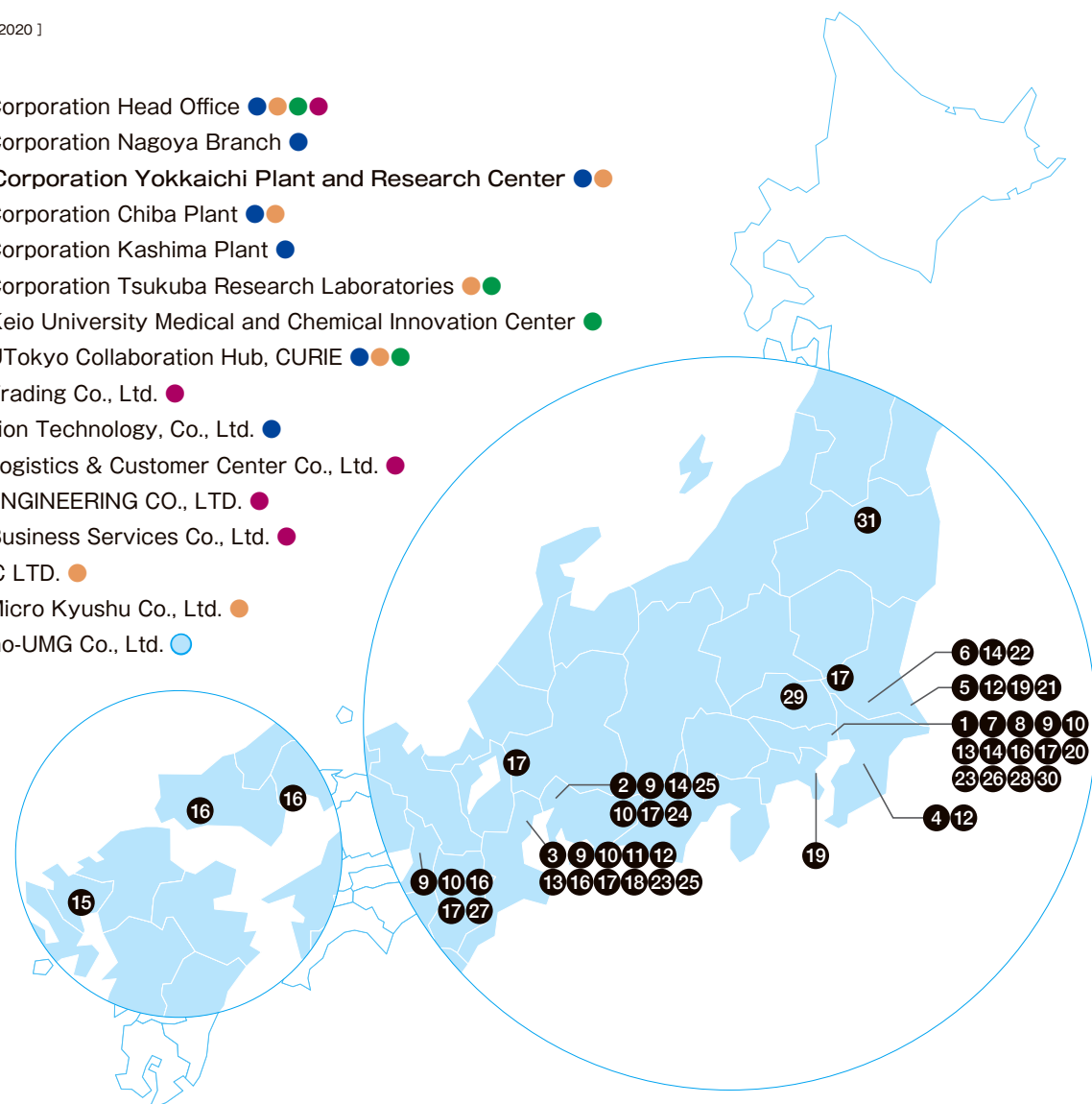
- Elastomers Business
- Plastics Business
- Digital Solutions Business
- Life Sciences Business
- Other Businesses



The JSR network in Japan consists of the parent company, together with key manufacturing sites, research facilities and 23 JSR Group companies.

[ As of July 31, 2020 ]

- ① JSR Corporation Head Office ●●●●●
- ② JSR Corporation Nagoya Branch ●●●●●
- ③ JSR Corporation Yokkaichi Plant and Research Center ●●●●●
- ④ JSR Corporation Chiba Plant ●●●●●
- ⑤ JSR Corporation Kashima Plant ●●●●●
- ⑥ JSR Corporation Tsukuba Research Laboratories ●●●●●
- ⑦ JSR-Keio University Medical and Chemical Innovation Center ●●●●●
- ⑧ JSR-UTokyo Collaboration Hub, CURIE ●●●●●
- ⑨ JSR Trading Co., Ltd. ●●●●●
- ⑩ Emulsion Technology, Co., Ltd. ●●●●●
- ⑪ JSR Logistics & Customer Center Co., Ltd. ●●●●●
- ⑫ JSR ENGINEERING CO., LTD. ●●●●●
- ⑬ JSR Business Services Co., Ltd. ●●●●●
- ⑭ D-MEC LTD. ●●●●●
- ⑮ JSR Micro Kyushu Co., Ltd. ●●●●●
- ⑯ Techno-UMG Co., Ltd. ●●●●●



- ⑰ ELASTOMIX CO., LTD. ●●●●●
- ⑱ JAPAN COLORING CO., LTD. ●●●●●
- ⑲ Japan Butyl Co., Ltd. ●●●●●
- ⑳ JAPAN FINE COATINGS Co., Ltd. ●●●●●
- ㉑ KRATON JSR ELASTOMERS K. K. ●●●●●
- ㉒ JSR Life Sciences Corporation ●●●●●
- ㉓ JN System Partners Co., Ltd. ●●●●●
- ㉔ MEDICAL & BIOLOGICAL LABORATORIES CO., LTD. ●●●●●
- ㉕ JEY-TRANS CO., LTD. ●●●●●
- ㉖ LEXI Co., Ltd. ●●●●●
- ㉗ Goko Trading Co., Ltd. ●●●●●
- ㉘ JSR Active Innovation Fund LLC ●●●●●
- ㉙ Rapithela Co., Ltd. ●●●●●
- ㉚ MBL Venture Capital Co., Ltd. ●●●●●
- ㉛ G&G SCIENCE CO., LTD. ●●●●●

- Elastomers Business
- Plastics Business
- Digital Solutions Business
- Life Sciences Business
- Other Businesses

## JSR Corporation

■ Date of Establishment December 10, 1957

■ Capital ¥23,370 million

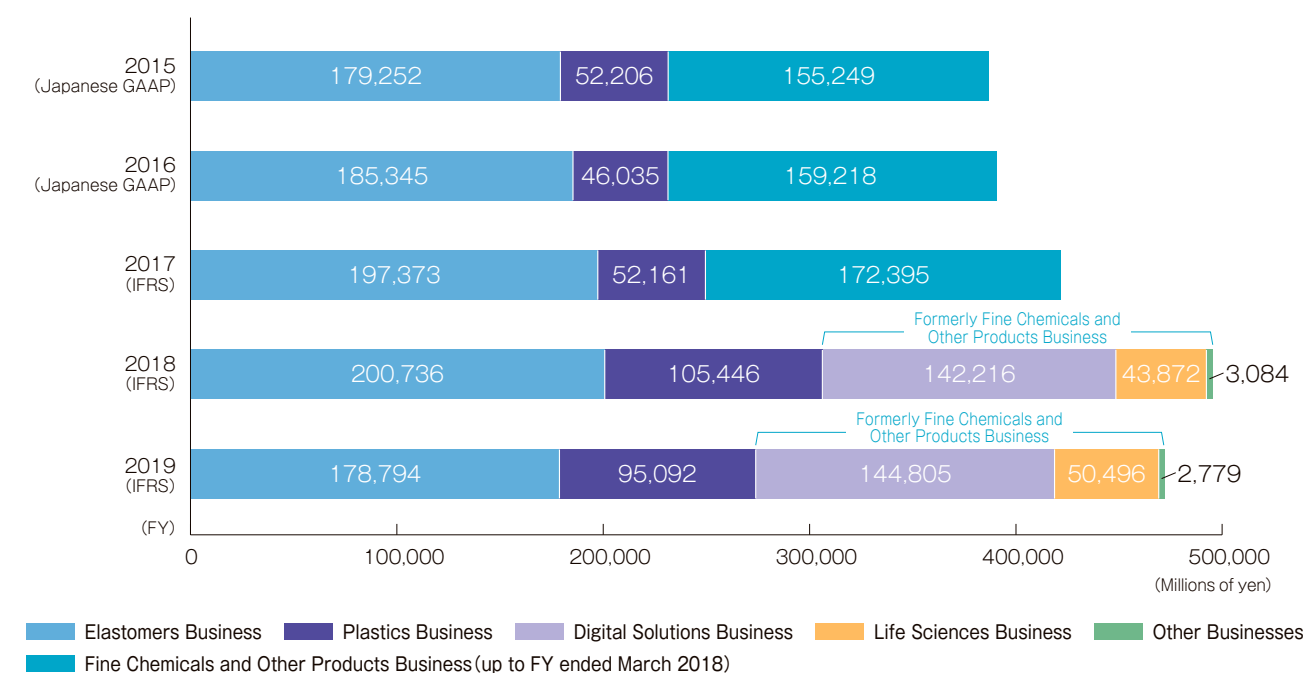
■ Total Number of Group Employees 9,050 (As of March 31, 2020)

### ■ Directors and Officers

Representative Director, CEO	Standing Audit & Supervisory Board Member	Senior Officer	Officer
Eric Johnson	Tomoaki Iwabuchi	Kazumasa Yamawaki	Eiichi Kobayashi
Representative Director, President and COO	Outside Audit & Supervisory Board Member	Makoto Doi	Yoichi Mizuno
Nobuo Kawahashi	Hisako Kato	Yoshikazu Yamaguchi	Yasufumi Fujii
Director, Chairman of the Board	Sumio Moriwaki	Kazushi Abe	Mikio Yamachika
Mitsunobu Koshiba	Executive Managing Officer	Mika Nakayama *	Tim Lowery
Director	Koichi Kawasaki *	Koichi Saeki	Koichi Hara
Koichi Kawasaki	Managing Officer	Seiji Takahashi	Junichi Takahashi
Hideki Miyazaki	Hayato Hirano		Keisuke Wakiyama
Mika Nakayama	Katsuya Inoue		Ichiko Tachibana
Outside Director	Hideki Miyazaki *		Toru Kimura
Yuzuru Mutsuda	Tadahiro Suhara		Yutaka Yoshimoto
Shiro Sugata			Hiroaki Tokuhisa
Tadayuki Seki			

\* Concurrently serving as director

### ■ Revenue by Business Segments



\* Beginning FY ended March 2019, the JSR Group has reclassified its reportable segments, abolished Fine Chemicals and Other Products Business, and divided them into Digital Solutions Business, Life Sciences Business, and Other Businesses.

\* Revenues for FY ended March 2019 and 2020 represent the total amount of continuing operations.



# JSR Corporation

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105-8640 Japan  
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Fax : 81-3-6218-3682

## Nagoya Branch

Dai Nagoya Building 15F  
3-28-12 Meieki, Nakamura-ku, Nagoya-shi, Aichi  
450-6415 Japan  
Tel : 81-52-533-2260  
Fax : 81-52-586-0261

## Yokkaichi Plant

100, Kawajiricho, Yokkaichi-shi, Mie  
510-8552 Japan  
Tel : 81-59-345-8000  
Fax : 81-59-345-8111

## Chiba Plant

5, Chigusakaigan, Ichihara-shi, Chiba  
299-0108 Japan  
Tel : 81-436-62-4161  
Fax : 81-436-62-1946

## Kashima Plant

34-1, Towada, Kamisu-shi, Ibaraki  
314-0102 Japan  
Tel : 81-299-96-2511  
Fax : 81-299-96-5695

## Yokkaichi Research Center

100, Kawajiricho, Yokkaichi-shi, Mie  
510-8552 Japan  
Tel : 81-59-345-8084  
Fax : 81-59-345-8118

## Tsukuba Research Laboratories

25, Miyukigaoka, Tsukuba-shi, Ibaraki  
305-0841 Japan  
Tel : 81-29-856-1001  
Fax : 81-29-856-1003

## JSR-Keio University Medical and Chemical Innovation Center

35, Shinanomachi, Shinjuku-ku, Tokyo  
160-8582 Japan  
Tel : 81-3-6274-8602  
Fax : 81-3-6274-8649

## 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

## Taiwan Branch

17F-C1, No.8, Zihciang S. Rd., Jhubei City,  
Hsinchu County 302, Taiwan, R.O.C.  
Tel : 886-3-657-6600  
Fax : 886-3-657-6642

<https://www.jsr.co.jp/>

