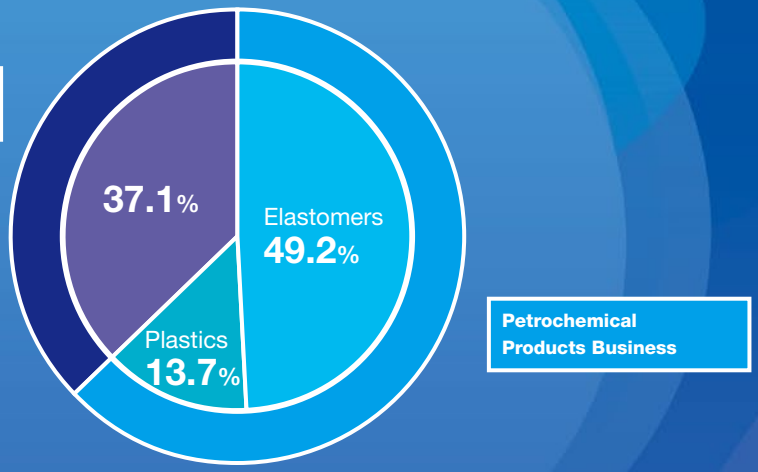
## Revenue Breakdown by Business Segment

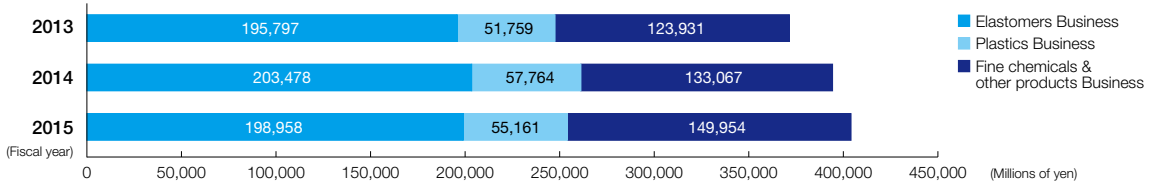



# Creating Corporate Value

The three strategic domains for the JSR Group are Petrochemical Products, Fine Chemicals, and Strategic Businesses. In each of these areas, we are developing business activities based on medium- and long-term perspectives.

# At a Glance

## Segment Sales




* Note: Fiscal year means year ended March 31

## Petrochemical Products Business

### Elastomers

**General-Purpose Synthetic Rubbers**
- Solution Polymerization Styrene-Butadiene Rubber (S-SBR), Emulsion polymerization Styrene-Butadiene Rubber (E-SBR), Polybutadiene Rubber (BR)

**Special-Purpose Synthetic Rubbers**
- Nitride Rubber (NBR), Butyl Rubber (IIR)
- Ethylene-Propylene Rubber (EPM/EPDM)

**Thermoplastic Elastomers (TPEs)**
- Syndiotactic 1, 2-Polybutadiene "JSR RB™"
- Hydrogenated Polymer "JSR DYNARON™"
- Styrene-Butadiene Thermoplastic Elastomers "JSR TR™"
- Styrene-Isoprene Thermoplastic Elastomers "JSR SIS™," etc.

**Emulsion Products**
- Paper Coating Latex, SB Latex, Acrylic Emulsions, etc.

**Performance Chemicals**
- High-Functional Dispersant "DYNAFLOW™"
- Organic/Inorganic Hybrid Coating Materials "GLASCA™"
- Battery Materials
- Thermal Management Materials

### Plastics

**Styrenic Resins**
- Acrylonitrile-Butadiene-Styrene (ABS) Plastic
- Acrylonitrile-Ethylene-Propylene-Styrene (AES) Plastic

## Fine Chemicals and Other Products Business

### Fine Chemicals

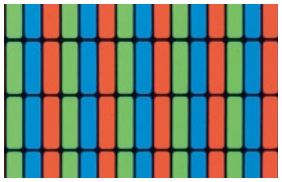
#### Semiconductor Materials

**Lithography Materials**
- Photoresists, multilayer materials, etc.

**CMP (Chemical Mechanical Planarization) Materials**
- CMP slurries and pads

**Packaging Materials**
- Thick-film photoresists, photosensitive insulation materials, etc.

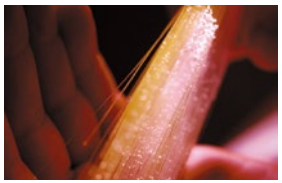
#### Display Materials



**LCD Materials**
- Alignment films, protective coatings, color pigment dispersed resists, photosensitive spacers, etc.

**New FPD Materials**
- Optical Coatings, OLED, etc.

#### Optical Materials



**Precision Materials and Processing Business**
- Heat-Resistant Transparent Resin "ARTON™"
- ARTON™ Optical Films, etc.

**Optical Materials**
- UV Curing Optical Fiber Coatings, etc.

### Strategic Businesses

#### Life Sciences Materials

**In-vitro Diagnostic and Research Reagents**
- Beads for Clinical Diagnostics
- Research Reagents
- Magnetic Beads
- Size Standard Beads

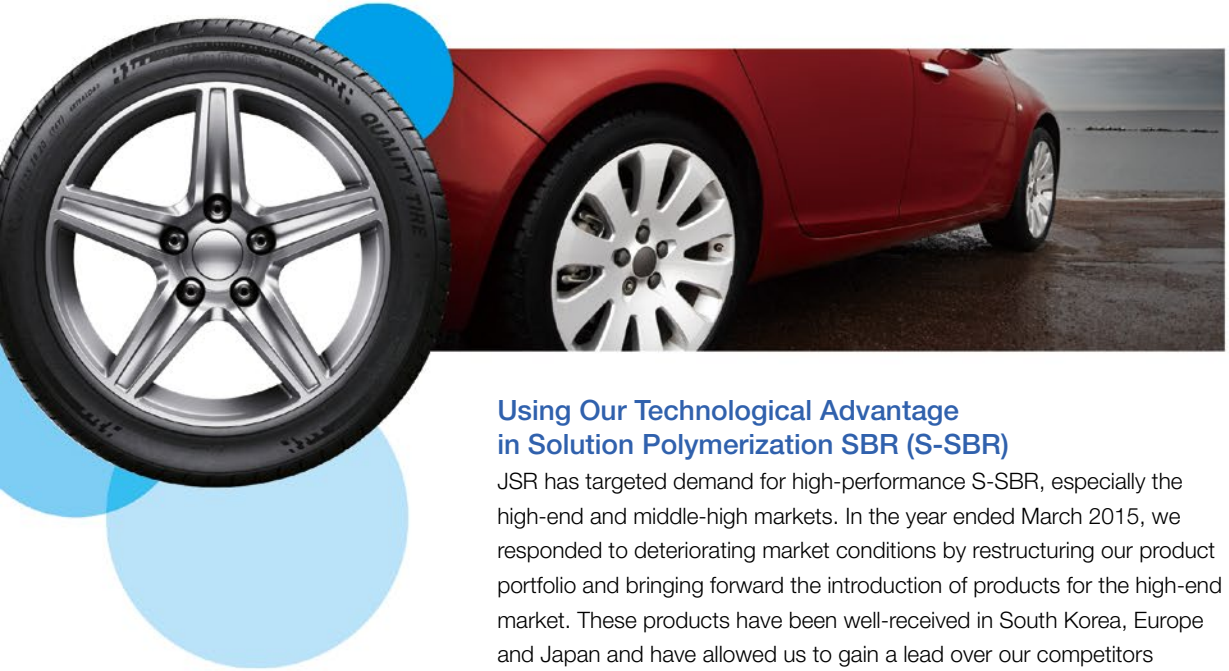
**Bioprocess Materials**
- Protein A affinity material
- Ion-exchange material

#### Lithium Ion Capacitors

**Cells**
- Laminate Cell
- Prismatic Cell

**Modules**
- Laminate Cell Module
- Prismatic Cell Module

# Petrochemical Products Business



## Using Our Technological Advantage in Solution Polymerization SBR (S-SBR)

JSR has targeted demand for high-performance S-SBR, especially the high-end and middle-high markets. In the year ended March 2015, we responded to deteriorating market conditions by restructuring our product portfolio and bringing forward the introduction of products for the high-end market. These products have been well-received in South Korea, Europe and Japan and have allowed us to gain a lead over our competitors through differentiation based on superior technology.

We also worked to expand our presence in the middle-end market by increasing supplies of products based on our exclusive technology in the year ended March 2015. We have not previously targeted this market because of the large number of competitors. However, we expect to achieve growth in this area by using our original technology to develop products that allow us to achieve high productivity and cost-competitiveness. The predicted shift toward electric vehicles is expected to result in an increase in use of high-torque vehicles. We will respond to this trend by supplying products with enhanced wear characteristics.

## Elastomers

**Performance Overview**

| Net Sales | Operating Income |
|---|---|
| ¥199.0 billion (-2.2%) | ¥10.7 billion (-38.1%) |

- Moderate year-on-year decline in total elastomer sales volumes
- Decrease in operating income from recurring expenses including the cost of regular maintenance
- Major decline in profit, mainly because of shrinking margins caused by a worsening supply-demand balance

## Plastics

**Performance Overview**

| Net Sales | Operating Income |
|---|---|
| ¥55.2 billion (-4.5%) | ¥2.8 billion (-27.5%) |

- Sales decline due to decreasing domestic production of motor vehicles and industrial materials, including building materials and miscellaneous goods
- A weaker yen and price adjustments in the first half of the period to reflect rising raw material costs not sufficient to offset reduced sales volumes, net sales down
- Operating income significantly affected by reduced sales volumes, despite current improvement in profit margins

Note: Fiscal year means year ended March 31

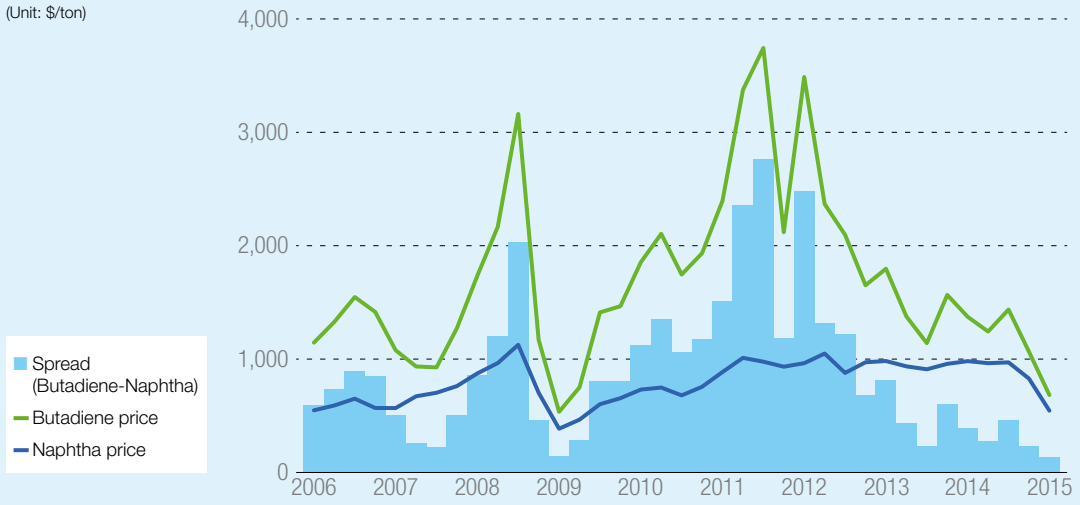
# S-SBR Business Strategy

JSR aims to be number one in terms of its share of the global market for Solution Polymerization SBR (S-SBR). We have three strategies for achieving this goal.

First, we will prepare predicted growth in demand over the medium- to long-term future by expanding the total supply capacity of the JSR Group. This strategy calls for the creation of a global network of production sites located close to user markets through the completion of a second phase of construction at the facilities of JBE in Thailand, and the planned construction of a plant in Hungary.

Second, we will strengthen our cost-competitiveness. Both JBE and the production operation in Hungary are joint ventures with local manufacturers. We will be able to ensure the constant supply of raw materials.

**Change in butadiene and naphtha prices**




Source: JSR prepared the chart based on statistics of Platts and JSR, etc.

Butadiene supplies are expected to fall short of demand in the future, and we aim to establish a structure that will allow us to source this material at competitive prices.

Third, we will differentiate our products and establish a technological advantage by introducing products into the high-end market ahead of our competitors. We will maintain a dominant share of expanding demand in the high-end market through continual performance and quality-based differentiation. We will also introduce products based on our original technology into the large middle-end market.

We aim to achieve sustained growth by steadily implementing these three strategies.

## The change in raw material prices

Since butadiene is produced from naphtha, the cost of naphtha production closely approximates our raw material cost. Because butadiene is the main raw material, its price is linked to the price of butadiene-based synthetic rubber, so the price spread between naphtha and butadiene is the key to higher profits.

From 2013, the supply-demand balance for butadiene has gone from bad to worse, and the price spread between naphtha and butadiene has shrunk. In particular, the year ended March 2015, the benchmark butadiene price in the fourth quarter was $700/t, dramatically reducing the price spread with naphtha. As a result, for year ended March 2015, profit was a key concern in the Petrochemical Products Business. Earnings will improve with a rise in the butadiene price or a drop in the price of naphtha, but since we forecast a continuation of the butadiene oversupply situation in the next fiscal year, the market doldrums are expected to continue. We anticipate that it will take about two years to fully eliminate the glut.

# Fine Chemicals and Other Products Business

## Semiconductor Materials: Yokkaichi Centralization Strategy

In the year ended March 2015, growth in the net sales of the Semiconductor Materials Business outpaced market growth. This reflects the start of full-scale high-volume manufacturing of leading-edge 20nm-generation products, an area in which JSR has a large market share, by major customers and other users. Emerging trends, such as Big Data and the Internet of Things (IoT) are expected to drive continuing growth in the semiconductor market. We aim to maintain our high market share when the 20nm generation is superseded by the 14nm generation and beyond, by developing new products and expanding sales. We will also focus on the development of products for the 10nm and later generations, especially through the development of EUV technology.

In 2014, we responded to this environment by changing our strategy for the Semiconductor Materials business. That strategy now calls for concentrated investment at Yokkaichi, which is a key base for the JSR Group's R&D and manufacturing operations. The aim of this investment is to create the best possible environment for product development and quality assurance. By centralizing the development and production of materials, we will speed up development while optimizing cost efficiency. We are working to optimize performance and quality through collaboration among raw material manufacturers, the R&D organization and our manufacturing operations. Most of our key products, including new resists and multilayer materials, are shipped from Yokkaichi.

### Performance Overview

**¥150.0 billion** (+12.7%) Net Sales

**¥24.5 billion** (+65.3%) Operating Income

- Year-on-year growth in both net sales and operating income from the Fine Chemicals and Other Products Business
- Increased net sales of semiconductor materials and display materials thanks to strong trends in the semiconductor and FPD markets
- Major progress toward the development of a structure to support future business development

### Semiconductor Materials

**Performance Overview**

**¥64.3 billion** (+26.9%) Net Sales

- Firm trend in semiconductor demand
- Start of full-scale high-volume manufacturing of leading-edge 20nm generation products by major customer—large market share for JSR

### Display Materials

**Performance Overview**

**¥68.5 billion** (+10.3%) Net Sales

- Firm trend in demand for FPDs for large-screen TVs and multi-functional mobile devices
- Market growth driven by shift to larger TV screens especially significant for year-on-year growth in net sales

# Fine Chemicals and Other Products Business

## Semiconductor Materials: Preparing for the EUV Generation

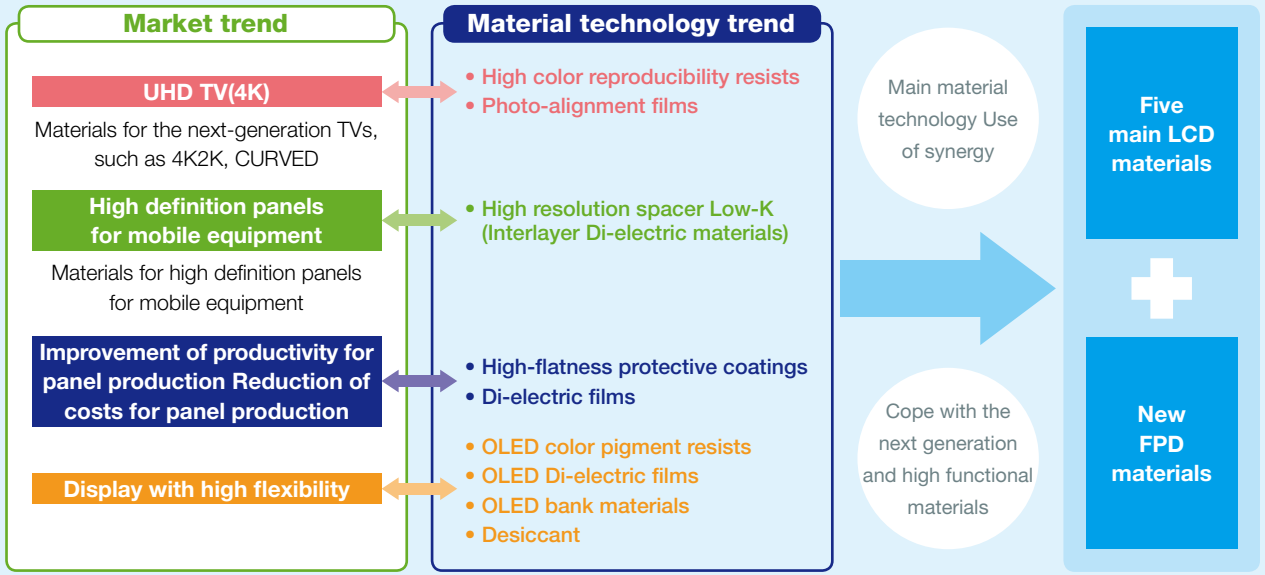
The establishment of Extreme Ultraviolet (EUV) lithography technology is seen as essential to the economic viability of semiconductor fabrication. EUV is one of the key technologies that will take semiconductors forward to the sub-10nm generation. JSR is preparing for high-volume manufacturing of chemically and non-chemically amplified resists developed using its global network. In 2015, we are collaborating with the Belgian organization imec, a leading research institute specializing in nano-electronic technology, to provide manufacturing and quality management services for EUV lithography materials, and there are plans for the establishment of joint venture.

## Display Materials: Business Development in Asian-countries

Trends toward higher-definition televisions and large screens are reflected in predictions of continuing growth in the market for display materials. JSR anticipates a sustained contribution to earnings from this area. A key trend in this market is Asian-countries. China in particular is expected to become a major market by 2020 because of its government's policy of establishing a domestic manufacturing industry. JSR has established a Taiwanese joint venture, JSR Micro (Changshu) Co., Ltd., to manufacture display materials in China. Our future activities in this area will center on China, and we plan to relocate grade development and customer support operations to bases in South Korea and Taiwan.

### Extended EUV Collaboration


### Display Materials: Future Business Development



# Fine Chemicals and Other Products Business

## Strategic Businesses

### Performance Overview

¥17.1 billion -15.5%

Net Sales

- Building a stronger relationship with Japanese antibody manufacturing pioneer Medical & Biological Laboratories Co., Ltd. (MBL)
- Joint acquisition of KBI Biopharma, a contract developer and manufacturers of biopharmaceuticals in the United States
- Start of commercial production at Lithium Ion Capacitor (LIC) plant with capacity for 3 million cells

### Life Sciences: Creating Synergies

We further strengthened our Life Sciences business by increasing our shareholding in MBL, an equity method subsidiary. From a development perspective, synergies achieved through closer collaboration with MBL will allow us to speed up development and create added value by combining JSR Group's particle technology with MBL's antibody technology. From a marketing perspective, we will be able to integrate our organizations and strengthen sales channels in the United States. Manufacturing operations will also be integrated.

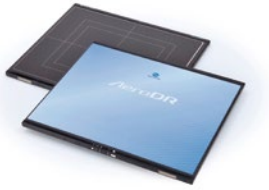
Increasing pharmaceutical development costs and other factors have led us to adopt a business model based on outsourcing of manufacturing process development as well as actual manufacturing. A company that provides these services is known as a contract development & manufacturing organization (CDMO). In March 2015, in a joint acquisition, JSR acquired KBI Biopharma, Inc., a CDMO in the United States. KBI has advanced analysis method development technology, which it uses in business operations that center primarily on the European and North American market. It provides pharmaceutical manufacturers and other companies with integrated manufacturing technology development and manufacturing services that range from the initial development of biopharmaceuticals to clinical trials and commercial production. By using these services, pharmaceutical manufacturers are able to focus their efforts on the discovery of pharmaceuticals while reducing their drug development costs. This approach will ultimately contribute to the increased use of biopharmaceuticals.

## Lithium Ion Capacitors: Track Record

Automatic Guided Vehicles (AGV)

Hybrid Excavators

Hybrid Buses



Radiographic Cassettes

### Lithium Ion Capacitors (LICs): Start of Production at New Plant

The JSR Group has completed a new mass-production plant for flat prismatic can lithium ion capacitors. Products are already being shipped from the new plant, which is the only facility in the world with the capacity to produce three million cells per year. Over 10 companies have started to use the products. We plan to use the new facility to win orders from small-lot customers. Despite the overwhelming performance advantage provided by LICs manufactured by the JSR Group, sales have not yet started to expand rapidly, and our most important priority will be creation of a value chain. Our business model for LICs is based on the transformation of materials and parts into cells and modules, and cells and modules into systems for end users. We aim to strengthen the value chain for LICs of the business going forward, much like the one build for the Life Sciences business.

# R&D Policy and Organization

## R&D Policy

### We will use accumulated technologies to open up new fields of technology

We see our R&D achievements as keys that will unlock the future for JSR. We have built an extensive R&D organization, which has created many new high-performance materials based on our original technologies. JSR's involvement in the petrochemical field began with elastomer technology. We have since developed our activities globally by creating highly competitive materials and technologies for a wide range of technology fields, including the seemingly disconnected area of IT. We have accumulated a record of continual effort to expand business areas behind our main business. That is, not only to deepen our knowledge of our core polymer technology, but also to develop ways of combining it with other technical fields such as optics, inorganic chemistry, and precision processing technology. We continue to challenge ourselves to develop new fields that offer major growth potential, such as next-generation electronics, life sciences, environment and energy.

### Integrating R&D with business activities

After discovering seeds of innovation through our R&D activities, we need to link those seeds to actual business activities. JSR has created an organizational structure that ensures rapid decision-making in this area by giving senior R&D executives management roles in strategic business divisions to ensure close collaboration. Another example of the accelerating integration of R&D and business activities is the identification of needs through direct interaction between our researchers and customers. The priority countries and regions for cutting-edge research vary according to every field such as elastomers, semiconductor materials, display materials, life sciences, environment and energy. By locating our R&D and business sites in the most advanced areas, we are building a structure that will allow us to respond quickly to new trends. We also make extensive use of strategic investments and business partnerships to secure rapid access to the advanced specialist technologies and knowledge, and connect our businesses that we need for our strategic business activities. We are evolving a structure that can provide new value to society by flexibly integrating R&D with business activities within the JSR Group and beyond.

## Number of Patents

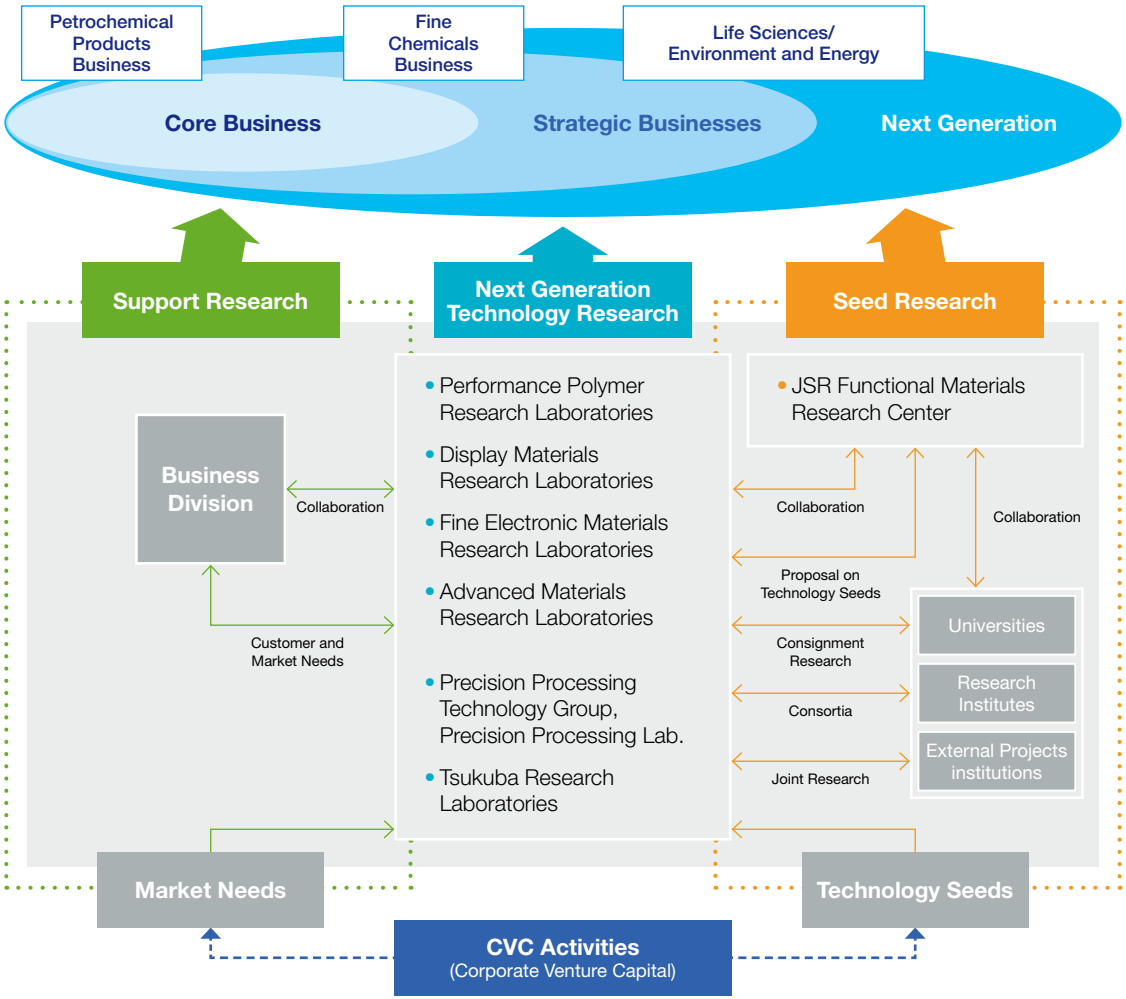
The number of patents held by JSR is steadily increasing in Japan and overseas, mainly in the Fine Chemicals and Other Products Business.

| As of March 31 | | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| Japan | Petrochemical Products | 428 | 374 | 377 | 387 | 358 | 334 | 308 |
| | Fine Chemicals and Other Products | 1,269 | 1,465 | 1,685 | 1,972 | 2,331 | 2,633 | 2,717 |
| | Others | 73 | 75 | 67 | 79 | 89 | 104 | 99 |
| | Subtotal | 1,770 | 1,914 | 2,129 | 2,438 | 2,778 | 3,071 | 3,124 |
| Overseas | Petrochemical Products | 512 | 492 | 489 | 507 | 523 | 516 | 531 |
| | Fine Chemicals and Other Products | 1,955 | 2,164 | 2,365 | 2,516 | 2,741 | 2,957 | 2,810 |
| | Others | 34 | 39 | 36 | 33 | 34 | 33 | 29 |
| | Subtotal | 2,501 | 2,695 | 2,890 | 3,056 | 3,298 | 3,506 | 3,370 |
| **Total** | | **4,271** | **4,609** | **5,019** | **5,494** | **6,076** | **6,577** | **6,494** |

# R&D Policy and Organization

## Creating materials for the future through materials innovation

### R&D Structure




### R&D Organization:
### A global approach to technology innovation centering on four R&D facilities in Japan

JSR currently has R&D facilities in Yokkaichi and Tsukuba in Japan. These R&D facilities support existing business activities while also helping to create new businesses. They therefore participate in highly innovative and exploratory research initiatives with customers, domestic and international universities, and research institutes. For example, in existing businesses, JSR Micro Korea and JSR Micro Taiwan have both built R&D facilities with clean rooms, allowing them to set up local integrated systems for Display materials, which serves not only the local production of products but also supports consistent development and innovation of technologies.

This capability allows them to promote their business by giving timely support to customers in South Korea and Taiwan.