

Business Domain and Results of Each Business

Digital Solutions Business

Semiconductor Materials Business

We provide a range of materials that support the shrinkage and integration of semiconductor devices, including lithography materials (photoresists, multilayer materials), CMP materials (for chemical and mechanical planarization), cleaning solutions, and advanced packaging materials used for device packaging.

Digital Solutions Business

Display Materials Business

We provide materials that go into color LCD panels used in smartphones, tablet devices, LCD TVs, and other electronics, such as alignment films and insulating films. We are also developing insulating films and planarizing layers for OLED panel materials.

Life Sciences Business

JSR Group's drug discovery and development services provide integrated support for the entire biopharmaceutical development process, from drug discovery to manufacturing. We are expanding our presence in the contract development and manufacturing organization of biologics (CDMO) and contract research organization (CRO) fields. We also provide materials developed in-house using polymer technology, such as diagnostic reagents and chromatography resins used to purify antibodies and drugs.

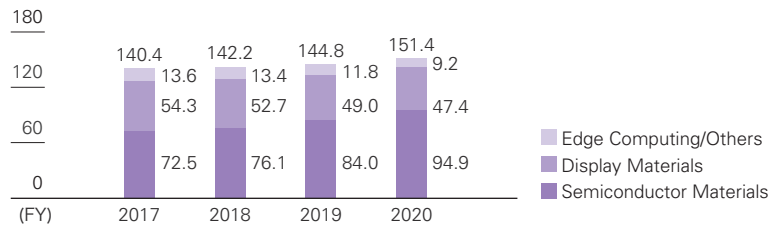
Elastomers Business

In addition to synthetic rubber used for tires and various rubber automotive parts, we are developing thermoplastic elastomers used in shoe soles and automobile sealants, which combine the characteristics of synthetic rubber and plastics, as well as latex used in the surface treatment of copy paper and emulsions used most notably in battery binders.

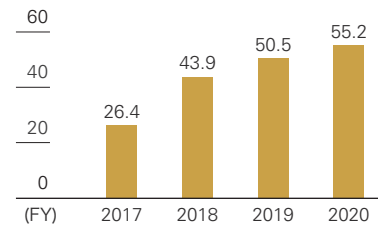
Plastics Business

We focus primarily on ABS resins used for a wide range of purposes, including automotive parts, household appliances and building materials. In addition, we also offer unique products such as anti-squeaking materials used in automobile interior materials, non-coated high colorable materials used in exterior materials, and plating materials.

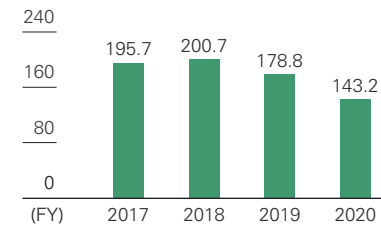
Revenue (Billion yen)



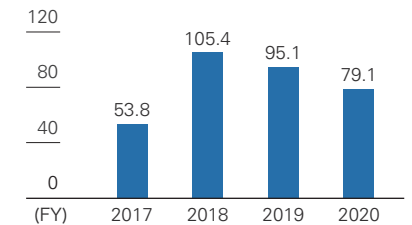
Revenue (Billion yen)



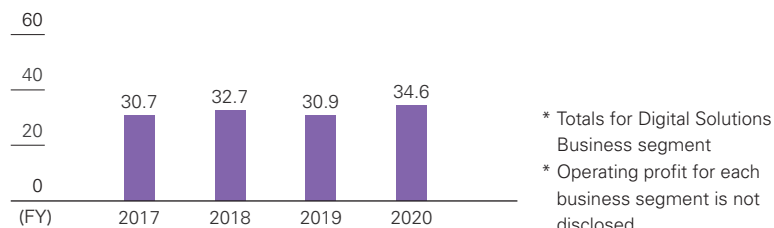
Revenue (Billion yen)



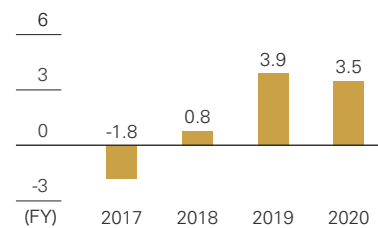
Revenue (Billion yen)



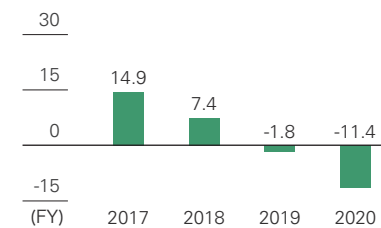
Operating Profit (Loss)(Billion yen)



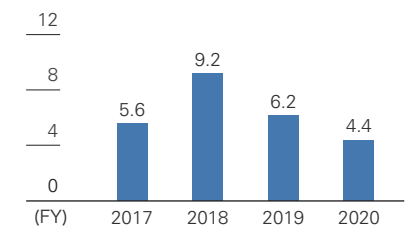
Operating Profit (Loss)(Billion yen)



Operating Profit (Loss)(Billion yen)

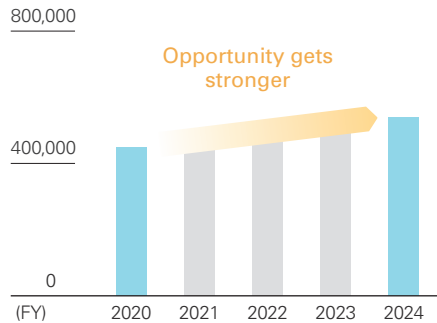


Operating Profit (Loss)(Billion yen)



Current Business Environment and Changes of the Business Portfolio

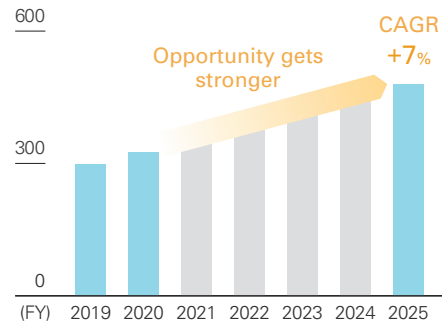
Semiconductor Market (\$1 Million)



Issues

- Device shrinkage
- Complexity of Structure and Process
- Social value as an essential industry

Biopharmaceutical Market (Unit: Billion USD)



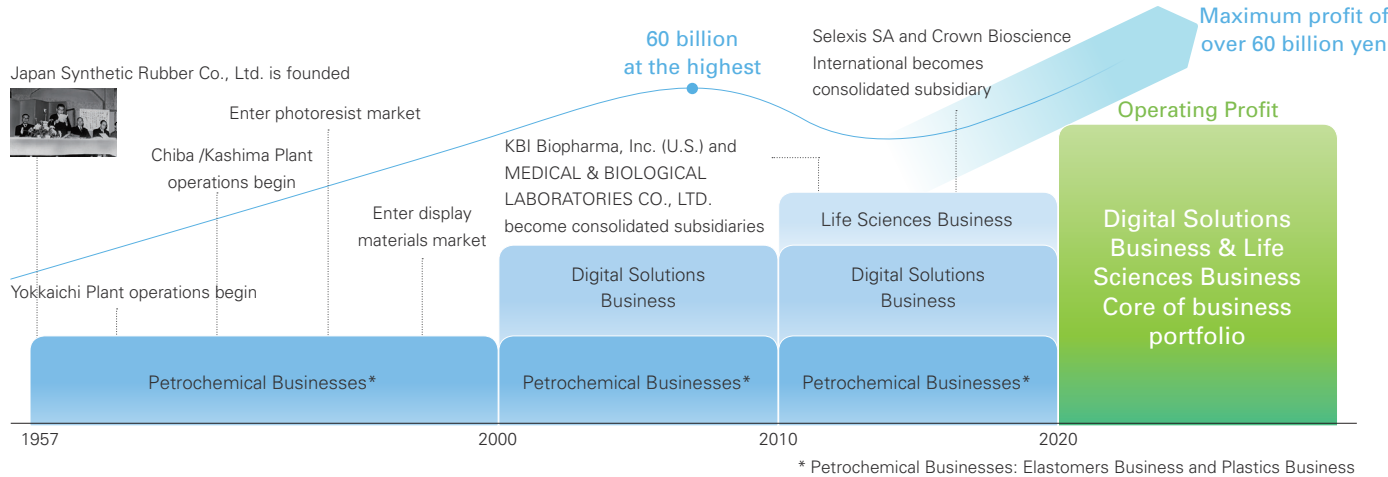
Issues

- Aging society
- Personalized medicine
- Efficiency improvement of drug development

Current Business Environment

JSR's Semiconductor Materials Business delivers materials that are essential to the manufacture of semiconductors. Semiconductors are the basis for countless technologies, including electronic devices, data centers, and autonomous driving, and are an indispensable growth industry for a smart society that is pursuing digitalization through AI, IoT, and other technologies. Semiconductor technologies continue to evolve, with the miniaturization of semiconductors and chips, higher performance, and more complicated semiconductor structures. JSR Group is using its technological innovation to bring new materials and technologies to market. Meanwhile, the Life Sciences Business has grown to encompass a wide range of materials and services for the biopharmaceuticals market, including in-house materials development, contracted development and manufacturing, contract research organization, and diagnostic reagents. Technological innovation in the biopharmaceuticals market is being driven by factors such as the aging population, the trend toward personalized medicine, and demands for shorter, less costly drug development. The Group is growing this business by drawing on its proprietary technologies while leveraging synergies among Group companies.

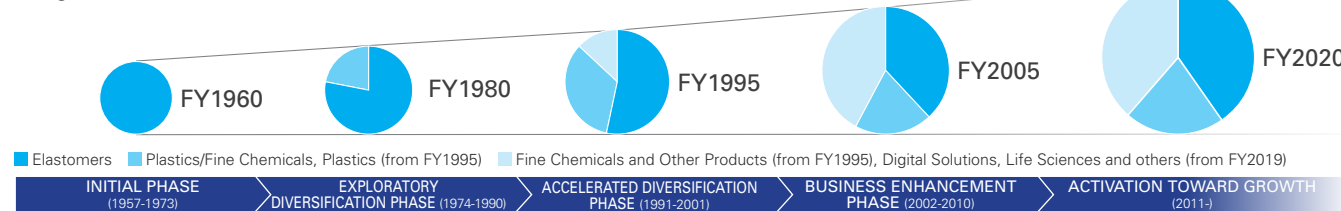
With Digital Solutions and Life Sciences businesses at the core, we aim to achieve sustainable growth and surpass the record-high profit set in FY2007.



About Future Business

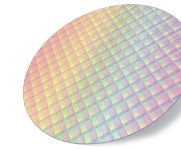
JSR Group's mission is to create new businesses through technology, contribute to solving issues faced by customers and society, and help society flourish. JSR started as a manufacturer of synthetic rubber, later moving into the plastics field, and further diversifying into the Digital Solutions Business in the 2000s. From 2010, the company actively invested in the Life Sciences Business, growing it into a third pillar of earnings. The management policy for FY2024 focuses on the Digital Solutions Business, primarily the Semiconductor Materials Business segment, and the Life Sciences Business, and aims to build the value of our business through superlative quality and robust customer support.

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



Business Introduction

Digital Solutions Business — Semiconductor Materials Business —



Contribution to Solve Social Issues

JSR Group 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.

Operating Results for FY2020

In the Semiconductor Materials Business, demand for both memory and logic semiconductors has been firm since the First Quarter of FY2020. Sales of advanced photoresists were particularly strong, due in part to advanced device launches by major customers. In addition, smooth product launches were achieved of cleaning solutions and packaging materials for cutting-edge semiconductors destined for major customers, which contributed to revenue gains from the previous fiscal year. The sector secured higher core operating profit despite greater expenses incurred with expanded cleaning solutions sales. Since the Semiconductor Materials Business is deemed an essential business for

people's livelihoods, global R&D, production, and other business activities continued without being impacted by the COVID-19 pandemic.

As a result, revenue in the Digital Solutions Business for the fiscal year under review was 151,420 million yen (up 4.6% year on year) and core operating profit was 34,568 million yen (up 11.8% year on year).

The Semiconductor Materials Business will continue its primary emphasis on cutting-edge processes, with a particular focus on EUV photoresists for 5 nm-generation-and-beyond semiconductors, working to maintain and build its share of the global market for lithography materials. JSR Group will strive to expand sales of packaging materials, broadening our lineup of materials to steadily capture 5G-related demand. We also aim to increase our share of the cleaning solutions market, led by operations at our US-based plant producing functional cleaning solutions for cutting-edge semiconductors, which started commercial production in the second half of FY2020.

Management Policies

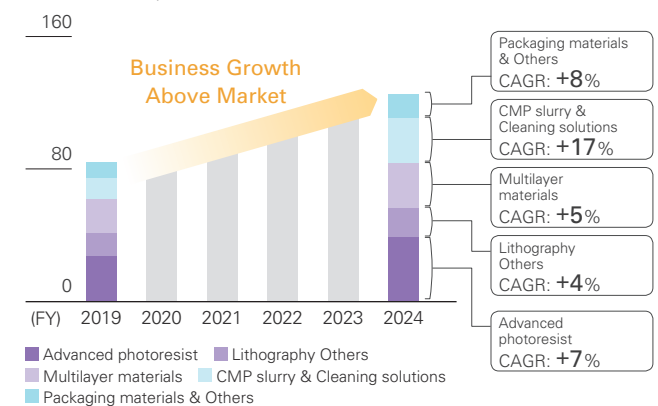
- ▶ **Double the sales growth of the market by keeping a high market share in ArF and multilayer materials sales expansion and start of full-scale demand of EUV photoresists and expansion of cleaning solutions, CMP slurry and packaging materials.**

Our Management Policy Aims

By expanding market share of our mainstay products and expanding sales of new materials, we are targeting revenue growth above the medium-term input growth rate for silicon wafers, which is the core client industry for the Semiconductor Materials Business. We expect to see growth in our advanced ArF and EUV photoresists. JSR Group boasts a solid share in the ArF and multilayer materials market, but we are working to further expand market share. Our EUV photoresists already support mass production for 7 nm and 5 nm semiconductors. By boosting their contribution to the cutting-edge 3 nm generation semiconductor field, particularly in the core Taiwanese and South Korean markets, we intend to position these products as top runners in the field. We also expect significant growth in CMP materials, cleaning solutions, and packaging materials that address increasingly complex manufacturing processes.

Digital Solutions: Semiconductor Materials Business Projection

Revenue (Billion yen)

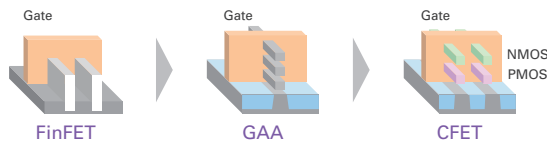


Digital Solutions Business — Semiconductor Materials Business —

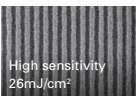
Semiconductor Materials Strategic Products

More Moore: Enable Scaling with Transistor Technology

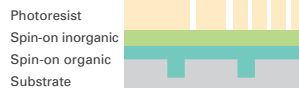
Beyond 3 nm device architecture



Photoresist



Spin-on hard mask

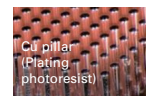


More than Moore: 3D Packaging

3D integrated circuit



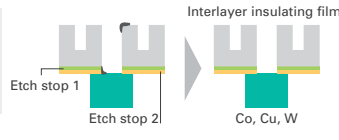
Dielectric material
Low Dk/Df



Thick photoresist
Plating photoresist

Metal interconnects: CMP & cleaning solutions

Cu > Non-cu metal interconnects



CMP slurry (Ru)

Post etch cleaning solutions

Strategies for Growth

As the generation to follow 7 nm and 5 nm, 3 nm technology is emerging at the leading edge of the technology roadmap for logic semiconductors used in CPUs and other key applications. In tandem with such device shrinkage, transistor, packaging, and wiring technologies are also undergoing innovation. As its strategic products in this field, JSR Group is positioning ArF photoresists, the current mainstream generation, and EUV photoresists, which promise market growth for 3 nm-generation-and-beyond semiconductors. Furthermore, we are putting together comprehensive solutions by offering a lineup of products used in conjunction with these photoresists, including multilayer materials, CMP materials, cleaning solutions, and packaging materials.

The Group's Semiconductor Materials Business is making inroads into markets worldwide, and counts all semiconductor manufacturers as key customers. By region, we are growing the business in markets in South Korea, Taiwan, the U.S., and Japan, where leading semiconductor manufacturers are located. Given further potential growth of the Chinese market, we are expanding our presence there as well. Our goal is to be a semiconductor materials technology company bringing value to customers by delivering advanced materials that are crucial for the evolution of semiconductor technology. Aside from our ability to expand globally, our competitive strengths

include R&D capabilities, stable supply capacity, and advanced quality control, and we will continue to enhance our comprehensive strengths.

To meet growing demand, we will invest in capacity expansion in stages as needed. We are also looking at potential acquisitions to scale production and expand the product portfolio.



New functional cleaning solutions production facility in the U.S.

Digital Solutions Business — Display Materials and Edge Computing businesses —



Contribution to Solve Social Issues

We expect continued growth in the LCD panel market. The spread of 8K broadcasting technology and 5G devices is fueling demand for new LCDs with high resolution, high brightness, and lower power and energy consumption. We will continue to offer customers solutions that fully capitalize on our new development methods incorporating digitalization technology.

Operating Results for FY2020

The Display Materials Business saw expanded sales volume to China of alignment films for wide-screen TV LCD panels, a strategic focus of the business. The sector posted lower revenue due to lower sales of color resists and photosensitive spacers, reflecting the abandonment of LCD production by some customers amid a growing migration of LCD production from South Korea and Taiwan to China. Despite this, core operating profit in the Display Materials Business was up on the back of strong alignment film sales. The Edge Computing Business suffered revenue and profit declines due to lower sales of near-infrared (NIR) cut-off filters.

As a result, revenue in the Digital Solutions Business for the fiscal year under review was 151,420 million yen

(up 4.6% year on year) and core operating profit was 34,568 million yen (up 11.8% year on year).

In the Display Materials Business, the Group will push for greater sales, especially of its competitive alignment films and insulating films for wide-screen TV LCD panels in China, where continued growth in the LCD panel market is anticipated, and implement steady structural reforms to address changes in customer industries. The Group will work to expand the Edge Computing Business by, for example, further expanding sales of NIR cut-off filters used chiefly in smartphone cameras.

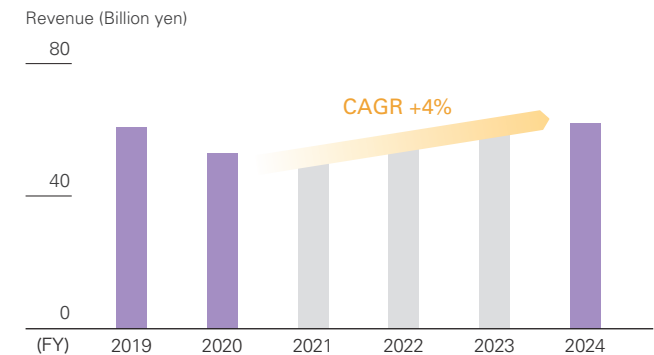
Management Policies

- ▶ **Maximize cash flow in the LCD materials business through strategically focused business realignment.**
- ▶ **Capture growth in markets for new types of displays.**
- ▶ **Capture new demand in the areas of high-speed communication and sensing, boost sales, and create new businesses. Actively develop NIR cut-off filters for high-end smartphone cameras.**

Our Management Policy Aims

We expect the Display Materials and Edge Computing businesses to generate stable cash and find a broadening range of target applications. The Display Materials Business will move forward with strategically focused realignment to maximize cash flow. We will also focus on materials for new types of displays. Although relatively small in scale, we are aggressively developing the Edge Computing Business, as our NIR filters stand poised to become the de facto standard in the field of camera modules for high-end smartphones. Through these measures, we aim to grow annual revenue by 4% through to FY2024.

Digital Solutions: Display Materials and Edge Computing Projections

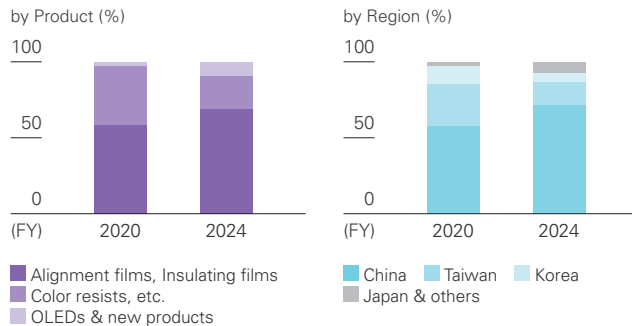


Digital Solutions Business — Display Materials Business —

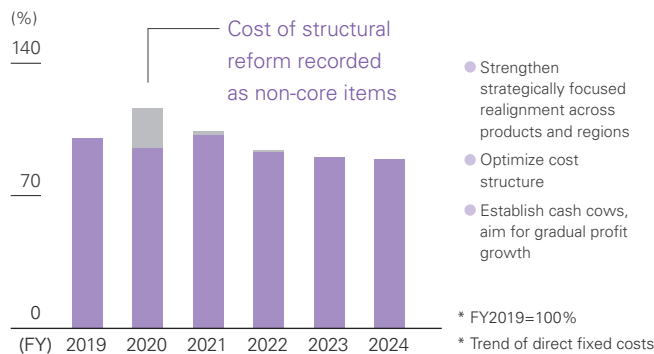
Projections

- Strategically focused realignment across products and regions
- Optimize cost structure
- Establish a sustainable business structure to be a cash cow with high ROIC.

Revenue Composition



Fixed costs



Strategies for Growth

The Display Materials Business has captured high market shares, stemming from our strategic focus on alignment films and insulating films that are crucial in determining the performance of LCD panels. In particular, sales of 4K/8K TVs, which are said currently to account for about 10% of the market, are expected to increase, and 4K/8K TVs now on the market use alignment films manufactured by JSR Group, enabling us to secure top global market share.

Targeting continued growth potential for LCD panels in the Chinese market, JSR Group 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, we transferred business management functions from Japan to China, the primary market, and put a system in place to enable efficient information gathering and quick decision-making at the frontline of that market. In addition, we established sales offices in Beijing, Hefei, Chongqing, Fuzhou, Shenzhen, Guangzhou, and Wuhan to reinforce sales and technical services, while a technical center in Shanghai reinforces our technical support capabilities. To further reinforce its technical support capabilities, the technical center will relocate to another district of Shanghai in 2022 and its functions will be expanded. 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. For color resists and other commodity products, in September 2020 we announced that we would significantly curtail operations in South Korea and Taiwan as part of structural reforms.

Structural reforms are still ongoing in FY2021, but we expect to realize cost reductions starting in FY2022. We will also pursue initiatives in growth areas such as materials for low temperature solution packages, OLEDs, and IoT applications. In the Display Materials Business, we are strategically realigning the product portfolio and focus markets, while paying attention not only to stable, long-term cash generation through cost optimization but also to gradual but steady profit growth.



Laboratory at the Shanghai Technology Center.



The center is scheduled to start operation in 2022.

Life Sciences Business

Contribution to Solve Social Issues

We deliver materials and support services for the entire biopharmaceutical process, from drug discovery through development and manufacturing. Our advanced framework can provide pharmaceutical companies, biotechnology companies, and academic and research institutions with services and products that help increase the efficacy of biologics and boost the probability of successful development, while shortening development periods, thereby helping to bring advanced healthcare to market sooner.

Operating Results for FY2020

In the Life Sciences Business, with our U.S. headquarters guiding strategies for the entire business segment, the Group has worked to expand revenue primarily in biomedical drug discovery and biologics contract development and manufacturing, in addition to business from materials developed in-house. Group company Crown Bioscience International (Crown) made solid progress in the contract research (CRO) services it provides. In the cell line development and contract development and manufacturing (CDMO) business, led by Group companies Selexis SA (Selexis) and KBI Biopharma, Inc. (KBI), respectively, Selexis posted solid revenue growth, while KBI's revenue increased but profits were down due to COVID-19-related supply-chain interruptions and a one-time accounting adjustment recorded in the previous fiscal year. Revenues from diagnostic reagents, bioprocess materials, and other

products also climbed. The diagnostic reagent business of Medical & Biological Laboratories Co., Ltd. (MBL), which became a wholly owned subsidiary in the fiscal year under review, grew steadily, contributing to overall higher revenue year on year.

As a result of the above, revenue in the Life Sciences Business for the fiscal year under review was 55,197 million yen (up 9.3% year on year) and core operating profit was 3,510 million yen (down 11.0% year on year).

In the Life Sciences Business, the Group will strive to further increase revenue and profitability by winning new contracts in the CDMO and CRO businesses. To boost revenue, KBI will leverage expanded capacity at its North Carolina, U.S. and Geneva, Switzerland facilities, where it invested in FY2020. Group unification will drive strong business expansion, through the combination of greater adoption of diagnostic reagents and bioprocess materials worldwide, enhancement to the diagnostic reagent business after MBL's consolidation, and research activities at the JSR-Keio University Medical and Chemical Innovation Center (JKiC).

Management Policies

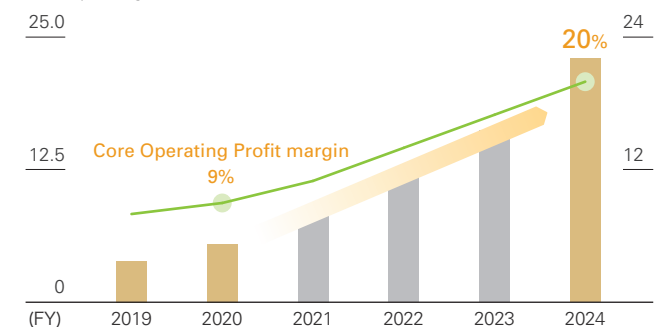
- ▶ **Achieve revenue of more than 100 billion yen and core operating profit margin of 20% or more at a growth rate above market.**
- ▶ **In addition to pursuing strategies in each business, strengthen the strategic synergies across the Life Sciences group and aim for growth above and beyond targets.**

Our Management Policy Aims

The CDMO business accounts for about half of the revenue in the Life Sciences Business. The remainder consists of revenue from the CRO business, MBL, which became a wholly owned subsidiary in 2020, and from materials developed in-house (diagnostic and research reagents and bioprocess materials). The core operating profit margin for FY2020 was 9.0%. We will work to improve the margin by clearly linking upfront investments to revenue gains. Moreover, the segment is still in its infancy, and has ample room to boost profitability through scale and further integration into the Group. We expect roughly 20% annual growth in revenue through FY2024, as well as increases in the core operating profit margin. The target by FY2024 is revenue of more than 100 billion yen and core operating profit margin of 20% or more. We will also reinforce technological development capabilities and other synergies across the Group.

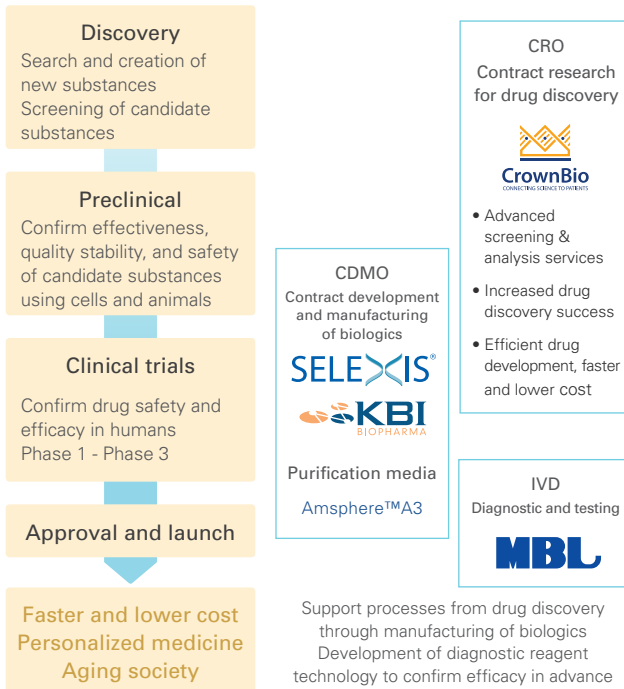
Life Sciences: Projections

Core Operating Profit (Billion Yen) (%)



Life Sciences Business

Business Domain

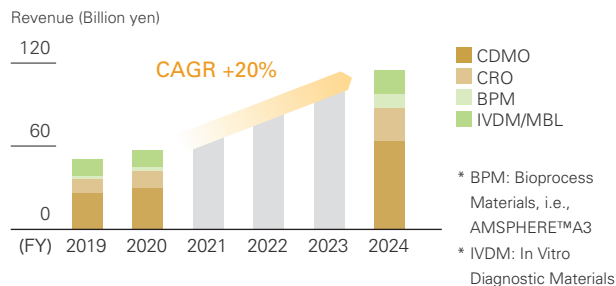


Strategies for Growth

Life Sciences Business operations prior to the approval and launch of biologics are broadly divided into three stages: discovery, nonclinical trials, and clinical trials. By providing a wide range of materials and services at each stage of the process, we help deliver optimal medical care to people faster and cheaper. Specifically, we provide CRO and CDMO services, products related to in vitro diagnostics, and materials developed in-house. The Life Sciences Business is set apart by distinctive technology, stemming from a combination of JSR's proprietary technology and technology gained through acquisitions. A rising volume of contracted projects will drive future growth in the CDMO business. In this market, which is attracting an increasing number of entrants, three characteristics set JSR Group's CDMO business apart. First, in addition to standard antibodies, we excel in the development of next-generation, difficult-to-express biologics such as bispecific antibodies. We can offer analysis and manufacturing process development capabilities drawing on this strength. Next, although small in scale, we are engaged in the fine-tuned, flexible development of biologics with complex molecular designs related to high-value-added personalized and precision medicine. We also handle proprietary materials that draw on our advanced quality management capabilities and apply these to the manufacturing process. In the CDMO business, we have started construction of new plants in Geneva, Switzerland and North Carolina in the U.S. The Geneva plant will be the base of our CDMO operations in Europe, while the plant in North Carolina will carry out joint projects with U.S. customers. Like the CDMO business, distinctive technological capabilities are the source of our competitive strengths in the CRO business. Our in vitro drug efficacy testing services boast a broad

lineup of testing models, including the world's largest number of PDX* models, primarily focused on immunology. In addition, we are contributing to more efficient discovery through our comprehensive new drug candidate discovery services, which bring together in vitro drug efficacy testing models and post in vivo/in vitro testing analytical services. Bioprocess materials, the Group's proprietary high-value-added materials, are finding application in a growing number of projects. We expect profits to grow in this field, in line with projected increases in order volume due to an increase in projects in the pipeline and likelihood of commercializing Phase 3 projects. In the in vitro diagnostics business, we will ensure stable profits by stepping up subsidiary MBL's expansion into the Chinese market and promoting our antibody contract research and contract companion diagnostic reagent research services.

* PDX: Patient derived xenograft. An immunodeficient mouse transplanted with human-derived cancer tissue. This process is effective in screening anticancer drugs because it allows evaluation in an environment closer to humans than conventional methods.



KBI's new plant in the U.S.

Elastomers Business



Contribution to Solve Social Issues

Sustainable development within 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 Elastomers Business. We will respond to technological demands for low-wear, high-durability materials due to the widespread use of fuel-efficient tires for conventional vehicles and electric vehicles (EVs).

Operating Results for FY2020 and Outlook

The COVID-19 pandemic's impact on production of automobile tires, one of the segment's main customer industries, was compounded by temporary production stoppages or reductions at tire-maker plants in Europe and elsewhere intended to curb the spread of COVID-19. Consequently, yearly production was down from the previous fiscal year, although production began to recover in the second half of the year.

Amid these circumstances, the sales volume of Solution Styrene-Butadiene Rubber (SSBR), positioned as a strategic product, remained at the same level as the previous fiscal year, despite a year-on-year decline in worldwide tire production. Nevertheless, the Elastomers Business 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 a core operating loss for the full term as a result of revenue declines and narrower price spreads.

As a result of the above, revenue in the Elastomers Business for the fiscal year under review was down to 143,186 million yen (down 19.9% year on year), while the core operating loss was 11,420 million yen, compared with a loss of 1,758 million yen a year earlier.

In the Elastomers Business, the Group will push forward with sales expansion of SSBR for high-performance tires, whose demand is expected to grow over the long term. Commercial SSBR production began in FY2020 at JSR MOL Synthetic Rubber Ltd., a joint venture set up in Hungary, which completed a system enabling the Group to supply SSBR globally from three sites in Japan, Thailand, and Hungary. The Group will also work to expand sales of binders for rechargeable batteries, in view of the growth in electric vehicles.

Separation and Business Transfer

In April 2022, we will separate the Elastomers Business to a successor company wholly owned by JSR, and plan to transfer the shares of the successor company to ENEOS Corporation (ENEOS).

Throughout its history, JSR Group has been proactive in responding to changing market and customer needs. After considering all strategic options, we made the difficult decision to move both JSR Group and the Elastomers Business, our foundational business, to a place where both entities can obtain the resources they need to build a stronger, more sustainable future.

As an industry leader, ENEOS has the scale, expertise, and management resources necessary to adequately support the long-term prospects of the Elastomers

Business. ENEOS also gave high ratings to the segment's technological capabilities and manufacturing expertise. Moreover, ENEOS is looking to expand its presence in high-performance materials as part of a strategic revision of its business model, and Elastomers Business was a perfect fit for that strategy. Considering these factors, we are convinced that ENEOS offers an environment in which the Elastomers Business will continue to flourish.

Elastomers Business Transfer Process



Scope of Transfer

JSR Corporation Elastomers Business

Some directly and indirectly related departments of Yokkaichi Plant, Chiba Plant (excluding Digital Solutions Business), and Kashima Plant; and some directly and indirectly related departments of Head Office

Elastomers-related Group companies

Elastomix Co., Ltd. Group, JSR Trading Co., Ltd. Group, Kraton JSR Elastomers K.K., Japan Butyl Co., Ltd., JSR Elastomer Korea Co., Ltd. JSR Elastomer India Private Limited, JSR Elastomer America, Inc., JSR Elastomer Europe GmbH, JSR MOL Synthetic Rubber Ltd., JSR BST Elastomer Co., Ltd., elastomers sales and technology base of JSR (Shanghai) Co., Ltd.

* 1 and 2 will occur on the same day (April 1, 2022).

Plastics Business



Contribution to Solve Social Issues

Customer needs are diversifying, including the demand for low in-vehicle noise in line with increasing use of electric vehicles (EVs) as well as calls for mono-materialization and solvent-free production to reduce environmental load and costs. We will continue offering products that address such diversifying customer needs, such as materials yielding low-squeak noise or unpainted components that reduce environmental impact.

Operating Results for FY2020 and Outlook

The Plastics Business segment saw a drop in sales volume and revenue from the previous fiscal year, due to weaker demand resulting from the COVID-19 pandemic. Core operating profit fell due to the segment's sales volume decline.

As a result of the above, revenue from the Plastics Business was 79,123 million yen (down 16.8% year on year) and core operating profit was 4,430 million yen (down 29.0% year on year).

The Group will work to expand the Plastics Business by enlarging sales, particularly in overseas markets, of distinctive, differentiated products that address

productivity innovations and higher quality levels in the automobile industry, such as HUSHLLOY™ anti-squeak material, VIVILLOY™ highly colorable materials for paint-less applications, and PLATZON™ plating material.

Mono-materialization

The automotive industry, a major client industry for plastics, is undergoing a major transformation. With the advancement of electrification and autonomous driving, manufacturers are demanding lighter and more multifunctional vehicle chassis than ever before.

To contribute to the transformation of the automobile industry through our Plastics Business, we are delivering mono-materials that reduce environmental load.

For instance, frictional vibration on the surface of 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 such squeaking. HUSHLLOY™ not only offers anti-squeak measures to maintain a quiet vehicle interior, which lasts for the lifetime of the product, but also allows lower costs of anti-squeak materials.

Based on proprietary polymer technology cultivated over many years of global sales and supply of weather-resistant materials (in the DIALAC® series) and composite plastic alloys, we developed VIVILLOY™, a highly colorable material for paint-less applications. This product features color depth and vividness closely resembling paint for components with intricate shapes. Bypassing the painting process contributes to lower overall cost. Moreover, by using a single, unpainted plastic, the material can be recycled, which further lessens the environmental load in terms of reducing the use of painting solvents.

