

CEO Message



Our Path to Enhanced Societal and Stakeholder Value

Eric Johnson
Representative Director, CEO, President

Strategic Partnership with JICC

On June 26, 2023, we reached an agreement with JIC Capital Co., Ltd. (JICC) to proceed with a public Tender Offer for our issued shares, as outlined in the “Announcement of Opinion on Scheduled Commencement of the Tender Offer and Recommendation for all our shareholders to tender their shares in the Tender Offer to be Conducted by JICC-02, Ltd. for the Shares in JSR Corporation”



shared by JSR Corporation.

Over the past few years, we have continued to look at opportunities that would enhance the value of JSR. During this time, we have reviewed our capital policies, investigated strategic partnerships, looked at investments, implemented structural reforms to our business, strategized the role that we could play in the consolidation of the sector and forged the best way for us to accelerate our growth.

It was part of this process that led us to approach JICC last November to discuss the current market and how we could jointly support the growth of the semiconductor sector in Japan. It soon became apparent that JICC was the best partner for JSR. Their mission of “promoting business restructuring to enhance the international competitiveness of domestic industries through the supply of large-scale, long-term, neutral money” fits with our strategy and ambition.

JICC has a good understanding of our business, sector and strategy and has the network, industry connections and resources to support the business’ mid to long-term growth strategy. JICC brings a wealth of business experience in areas including research and development, capital investment and mergers and acquisitions, particularly in Digital Solutions and Life Sciences, as well as significant

financial resources.

Partnering with JICC will help accelerate the implementation of our strategy and build on the strong momentum we have generated, enabling us to unlock new opportunities across our business. We will continue to focus on our two core businesses-Digital Solutions, in particular semiconductor materials, and Life Sciences. We see significant opportunities to grow these businesses and expand market share globally.

Under JICC’s ownership and as a private business, we will have greater time and flexibility to implement our long-term strategy. We will continue to grow and increase our corporate value and believe that the company will relist on the Tokyo Stock Exchange sometime in the future.

We firmly believe that this transaction is in the best interests of all our stakeholders.

Defining Our Brand as a Leader: Technology, Innovation and Excellence

We remain confident in our strategy and committed to our mission of enhancing societal value as a leading technology company. We continue to monitor the operating environment to ensure that we can adjust where needed, while still driving the platform of innovation and R&D we have worked

hard to establish. R&D lies at the center of everything we do and supports our long-term growth by underpinning the development of new and innovative technologies that will drive JSR's continued evolution. Our mission of driving materials innovation lies at the heart of our value creation strategy as we leverage JSR's technological strengths to contribute to society and bring value to all our stakeholders.

The sectors in which we operate are rapidly evolving. Staying up to date on technological developments and continual innovation is critical not only to our success but to our very survival. As an important player in the semiconductor industry, and a growing change-maker in the life sciences, JSR embraces the dynamism of these markets. We continue to find new ways to drive innovation and invest in new technologies to both support continued growth and ensure we remain agile and resilient. Throughout the past year we have continued to innovate, accelerating our R&D efforts in important and emerging areas such as support for personalized therapies for cancer, and the increasing potential of quantum computing.

In semiconductor materials, we continue to invest in new applications for metal oxide resist (MOR) and are already seeing its implementation in

commercial use. MOR is enabling a new regime for semiconductor materials businesses and investing in this technology will give us a strong competitive advantage. Seeing adoption of leading-edge extreme ultraviolet (EUV) imaging technology as the insertion point for MOR in the next generation of equipment, we have invested in early MOR production to capitalize on its benefits over conventional chemically-amplified resists. We see strong potential in these areas moving forward.

In Life Sciences, we continue to look at bioinformatics with a focus on using sequenced human tissue samples to test therapeutic efficacy and find new applications, including personalized medicine. An area where we are already seeing this in practice is breast cancer treatments, which have been segmented into different therapeutic regimes based on initial companion diagnostics and genetic markers.

Another area with encouraging long-term potential is quantum computing. We believe quantum computing will present significant opportunities for both of our key segments, especially in areas such as materials science and biologics development. While it is too early to understand the full potential value of this technology, we see an inflection point on the horizon, with innovation rapidly evolving in other new technologies such as artificial intelligence (AI). We

will continue to invest in developing that competency so we can be at the forefront when these new technologies emerge for more practical use.

We have also continued to foster and grow our partnerships for all our core segments. In Digital Solutions, we continue to partner with Belgian consortium imec to accelerate R&D efforts and share cultural and operational learnings. In Life Sciences, we have grown our relationship with Keio



University as well as developing new relationships with other universities, such as Hokkaido University. These partnerships enable us to build on our culture of innovation, curiosity and engagement as we continue to evolve.

Staying the Course: Management Policy FY2024

For JSR Group to deliver value sustainably, we

need to both keep a finger on the pulse of social change and understand the environmental challenges we face. While we transitioned from a three-year to a five-year strategic plan through fiscal year ending March 2025, the impact of the pandemic has meant we are working to execute our objectives in a four-year period. We recognize the importance of staying flexible and attuned to changing market dynamics and are undertaking an

annual review of our core established metrics, which include return on equity, profitability and sustainability. We will assess these on a yearly basis and adjust as required.

We have identified Five Foundations as critical to our success as we transform to become leaner, more efficient and focus on the sustainable growth outlined in the management policy, with an eye toward building resilience as an organization. These foundations—Innovative Culture, Digitalization, Globalization, Operational Excellence and Sustainability—will serve as our guiding principles as we progress through this transformation and continue to drive corporate value.

We understand the importance of digital transformation and have appointed a Chief Digital Officer who will lead us in accelerating our digital strategy. Digitalization requires a holistic approach and we will work to evolve our platforms and competencies to find new solutions. We will also continue to grow our data analysis capability and secure buy-in across the organization.

Embracing Sustainability: Our ESG Initiatives and Environmental Commitments

Sustainability is a critical part of our strategy and we recognize that to be a truly sustainable organization,



we must drive investment and innovation across the organization. We will do this by continuing to be proactive in implementing robust Environmental, Social, and Governance (ESG) strategies and targets. We will specifically focus on our infrastructure, enhancing employee engagement, and driving new climate initiatives.

We are currently focused on making improvements in two areas. First is to implement dynamic assessments of our strategy and targets, and update our materiality where required to meet constantly evolving business and societal needs. The second is to continue to reinforce corporate culture by enhancing employee engagement through initiatives such as Diversity, Equity and Inclusion (DEI). Furthermore, as outlined in the JSR Sustainability Challenge, we are working on identifying the impact of our operations to ensure we provide our teams with clear metrics and strategies to guide them as they work to support our sustainability efforts.

We have made good progress over the past year in several areas. We completed our second employee engagement survey, and we have committed to accelerating our efforts in DEI as a result. We also heard from our teams that they want to understand what the recent transformation of our

business means for our heritage and the DNA of our company moving forward. We have accelerated our engagement with employees with new initiatives to help them understand and bring them along on our journey as we evolve.

Focusing on diversity is important for us and we are committed to being part of the cultural conversations, including finding new ways to make sure we empower women and under-represented groups throughout our organization and beyond. Bridging gender, cultural and identity-related divides by truly understanding our workforce and the challenges it faces is vital in creating a globally united JSR where all employees can realize their true potential.

It is critical that we embed sustainability into our business strategies and corporate management, and we have established systems and key performance indicators (KPIs) based on our materiality studies. In developing these KPIs—encompassing environment, employee engagement, health and safety and supply chain issues—it became clear that we must have a strategic focus on understanding real market opportunities relative to environmental trends and environmental impact when contemplating all investments. The Sustainability Promotion

department has been given the authority to oversee business units to ensure that their decisions also consider climate and environmental related recommendations in addition to financial assessments.

While we will continue to leverage our material science-related technological capabilities, we are determined to deepen our relationships with our global customer base. All these efforts are inextricably linked to sustainability, which requires a holistic view toward ensuring JSR's future while also



addressing vital environmental issues such as climate change facilitated by greenhouse gas emissions.

To continue delivering the quality and service our customers expect of us, we must also continue bringing strong, capable people into our workforce and are focused on attracting the best and brightest. Optimizing employee engagement and satisfaction is fundamental to cultivating a truly excellent culture.

Sustainability is a journey, and we will continue to pursue our initiatives while making adjustments and improvements along the way.

Engaging With Our Stakeholders: Maintaining Trust

Finally, I would like to express my gratitude to our stakeholders and reemphasize my commitment to our stated mission. As JSR continues to evolve, we are well positioned to meet challenges with solutions and embrace new opportunities as we focus on addressing the most pressing needs of business and society. Our efforts toward achieving this will show our valued stakeholders that their faith in JSR as a technology leader and excellent corporate citizen is well placed.



Eric Johnson
Representative Director, CEO, President

A handwritten signature in black ink, appearing to read 'Eric Johnson', written over a white background.

Medium-term Management Policy

JSR Group is building a resilient organization and transforming its corporate culture under Medium-term Management Policy eyeing FY2024.

Vision

- Creating value for all stakeholders, aiming for sustainable growth
- Building a resilient organization that can embrace any changes in the operating environment

Business Portfolio

Digital Solutions Business (especially **Semiconductor Materials**) and **Life Sciences Business** are core businesses

Business Target

ROE More than

10%

Core Operating Profit

Exceed Prior Peak (recorded in FY2007)

60 billion yen or more (Digital Solutions and Life Sciences)

Structure

Resilient Infrastructure

Innovation/Digitalization/ESG commitment/
Employee engagement

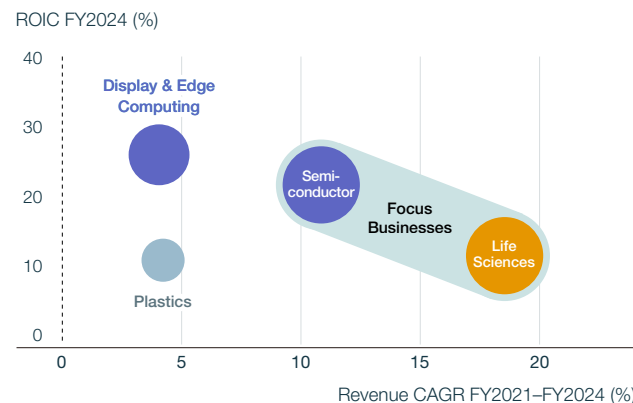
Under its Medium-term Management Policy for the period leading up to FY2024, JSR Group’s highest priority is to “shift toward a business structure and management framework characterized by resilience and sustainability over the medium to long term.” Another goal is to use our technology to solve society’s problems. To this end, we are positioning the Digital Solutions Business (particularly its Semiconductor Materials Business, which is geared toward innovation) and Life Sciences Business as core businesses for achieving sustained growth. Our specific targets for FY2024 are to achieve operating profit of 60 billion yen, which would exceed the prior peak, along with ROE of at least 10% while maximizing ROIC.

Business Portfolio

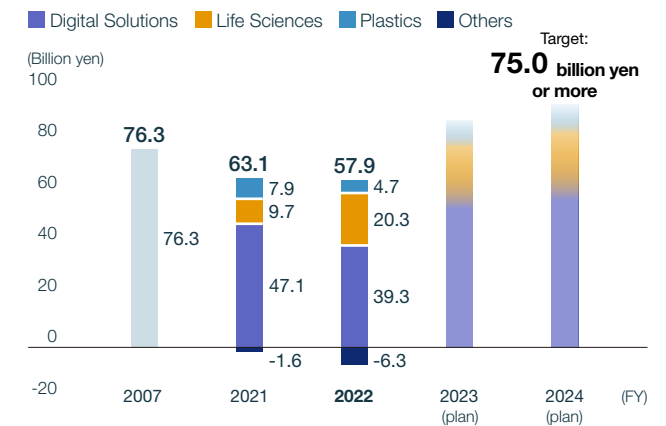
Pursuing efficiency with strategically focused realignment

During the period leading up to FY2024, we will analyze the capital cost of each business, using ROIC as the basis, and focusing resources on those businesses with the best future prospects. As for those focus businesses where stable medium- to long-term growth is expected and in which JSR Group can manifest its strengths, the plan is to try to realize strong top-line growth and maintain high profitability in the Digital Solutions Business and achieve 20% growth, including the top line, in the Life Sciences Business. We also aim to achieve an EBITDA of 75 billion yen in FY2024.

Target Business Portfolio in FY2024



EBITDA



Business Target

Aiming to raise corporate value by boosting profitability

During the period covered by the Medium-Term Management Policy, we will be focusing resources on the Semiconductor Materials Business of the Digital Solutions Business as well as on the Life Sciences Business as we seek to create distinctive value. In the Digital Solutions Business, we will leverage our comprehensive technical strengths, including JSR Group's powerful development expertise, to provide advanced materials and a wide range of other products. In the Life Sciences Business, we will support development of complex biopharmaceuticals by applying the powerful technical strengths we have cultivated through our history.

With this approach, we aim to increase revenue from

these two focus businesses, from 200 billion yen in FY2020 to 300 billion yen by FY2024, with a CAGR of 10%. We also aim to grow the core operating profit to a new peak of at least 60 billion yen, expanding the core operating profit margin from about 15% in FY2020 to 20% or more in FY2024. We will also work to boost capital productivity, with a target ROE of at least 10%, by managing our business portfolio with ROIC as a criterion.

Structure

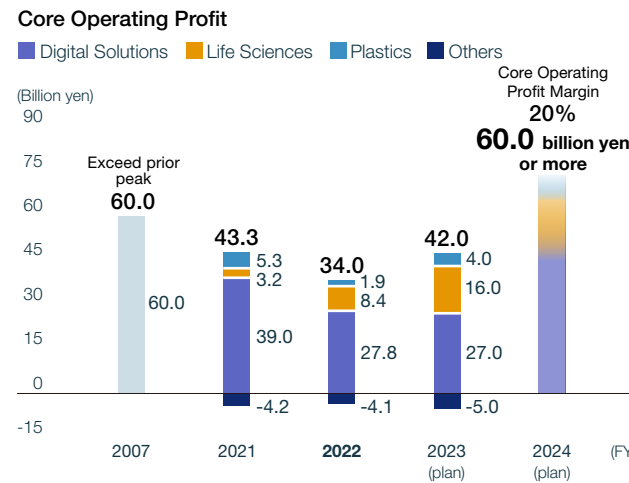
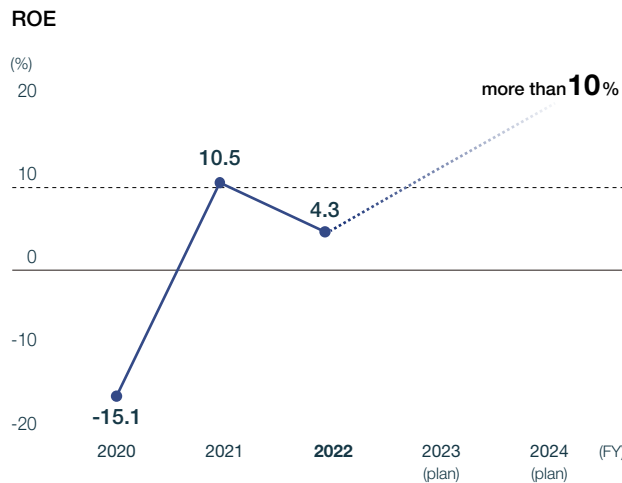
Building a resilient management foundation that responds to changing times

We are living in a time of uncertainty as society grows more diverse and complex. To turn changes in the environment into opportunities and grow from them, JSR Group must strengthen the corporate culture it has

fostered and transform so it can respond to change. The Group has defined Five Foundations that underlie our corporate culture as we work to realize sustained growth.

The Five Foundations are Sustainability, which helps to increase value for all stakeholders; Innovative Culture that promotes the innovation that will ensure we remain a leading-edge technology company; Globalization to enhance our awareness and capability to respond to global change and expand our infrastructure; Digitalization to promote operating efficiency by harnessing trends in digital transformation (DX); and Operational Excellence that ensures that each department's activities are directly tied to targets of the Medium-Term Management Policy.

Going forward, by undertaking these initiatives, we aim to build a resilient management foundation and continually increase corporate value.



5 Foundations



Digital Solutions Business

Focusing on measures to grow market share and initiatives in the area of upfront investments with sales and development working closely together

In the Digital Solutions Business, we saw revenue increase but profits decrease in FY2022.

In FY2023, we will focus on measures to increase our market share during the market recovery period in FY2024 and initiatives in the area of upfront investments. In addition, we will improve profitability through business structural reforms (optimization of resource allocation) and operational excellence, including cost reduction.

In terms of structure, in June 2023, we changed the reporting line of R&D in existing businesses from the CTO to business departments. We will further strengthen cooperation with the development departments, and ensure that sales and

development are on the same page in responding quickly to changes in the external environment.

In order to make our sales and production structures even more sustainable, we will utilize digital technology to strengthen supply chain management.

Mikio Yamachika
Senior Officer

Semiconductor materials

Business strengths

- Strong relationships with major global customers
- Flexible development, sales, and production structure that meets customer needs
- Product development and problem-solving capabilities developed based on polymer/organic synthetic technologies and analytic technologies
- Stable supply of high quality products

Awareness of the business environment

- Increased demand for semiconductors due to digitalization of society
- Increased needs for cutting-edge materials due to digital technology innovation
- Miniaturization of semiconductor chip, expanded demand for 5G
- Development of digital infrastructure

Edge computing/display materials

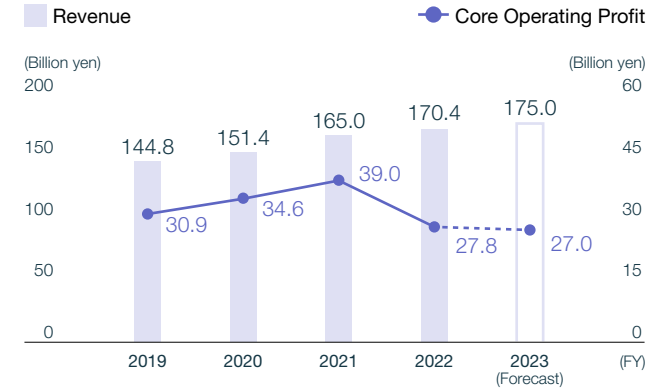
Business strengths

- Products with high market share
- Sales and production systems compatible with customer needs
- Technical prowess grounded in polymer technology

Awareness of the business environment

- Spread of high definition televisions such as 4K and 8K
- Growing LCD panel production in China driven by robust demand

Revenue and Core Operating Profit



Sale of Main Products (YoY)

Semiconductor materials	YoY ytd	Business environment (FY2023 forecast)	
		1H	2H
EUV	Up over 55%		
ArF	Up around 15%		
Multilayer materials	Up around 10%		
Other lithography materials	Up around 20%	↘	↗
CMP materials	Up over 20%		
Cleaning solutions	Up around 30%		
Packaging materials	Slight decline		

Display materials	YoY ytd	Business environment (FY2023 forecast)	
		1H	2H
Alignment Layer	Around -15%		
Passivation Coat	Less than -15%	↗	↗
Color resists	Around -65%		
OLED materials	Around -5%		

Edge computing	YoY ytd	Business environment (FY2023 forecast)	
		1H	2H
ARTON	Around -15%	→	↗

Growth strategy

Aiming to Achieve Net Sales and Profits beyond the Market's Rate of Growth and Further Expand Market Share, Primarily with Leading-Edge Photoresists

In the Semiconductor Materials Business, which is the core of the Digital Solutions Business, our aim is to grow sales faster than market growth. Specifically, in addition to further increasing our high share of the markets for ArF photoresists and multilayer materials, we are working toward a full-scale launch of EUV photoresists. Through these efforts, we are targeting revenue growth above the medium-term input

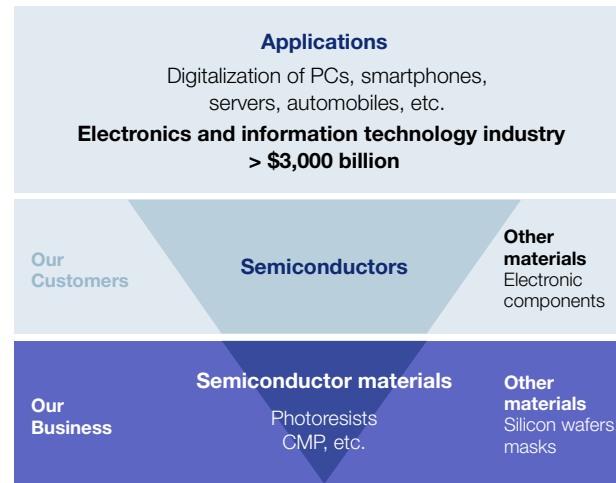
growth rate for silicon wafers, which is the core client industry for the Semiconductor Materials Business. In FY2022, we have newly developed and launched cutting-edge packaging materials for printed circuit boards in response to the full-fledged rollout of fifth generation mobile communication systems and autonomous driving. Despite some slowdown, semiconductor demand will continue to rise due to

increasing digitalization in areas related to PCs, smartphones, servers, automobiles, and more. In keeping with that, we will achieve sales growth at a faster rate than market growth and forecasts based on the business environment.

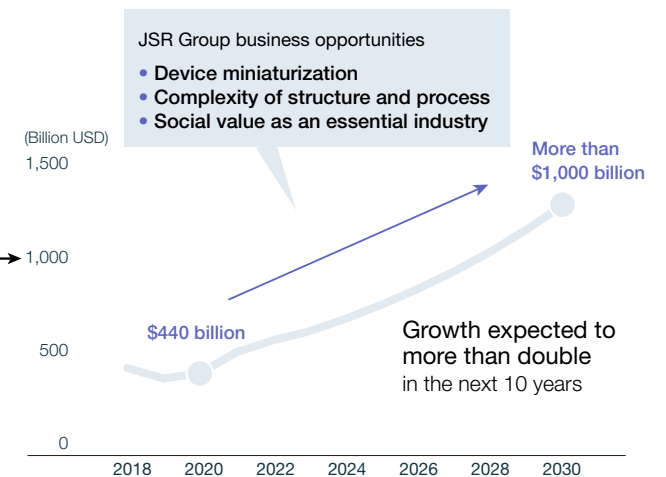
Going forward, moreover, we will continue to focus our efforts on leading-edge photoresists like ArF and EUV, which are expected to grow further given the market environment. Already, JSR boasts the global top share for ArF photoresists, with our products accounting for about a third of all semiconductors produced in the world. Instead of being satisfied with that record, our policy is to keep building up this share. In EUV photoresists, our aim is to be best-in-class by contributing more to the frontier 3 nm as well as future generation of semiconductors and to memory, primarily for the Taiwanese and Korean markets. We also expect wide growth in CMP materials, and packaging materials that support more complex processes.

	Revenue Faster than market growth	Core Operating Profit Margin Maintain Strong Margin (≥ 23%)
Market	<p>Scale</p> <ul style="list-style-type: none"> Total photoresist market: \$2 billion (Semiconductors: \$550 billion) <p>Trends</p> <ul style="list-style-type: none"> Steady growth Technological innovation advances 	
Social Value	<ul style="list-style-type: none"> Realize a smart society (AI, IoT) Achieve miniaturization and high performance requiring less power 	
Strength	<ul style="list-style-type: none"> High market share in advanced materials (e.g., ArF 30%, alignment film 50%) 	
Strategy	<ul style="list-style-type: none"> Concentration of resources on Semiconductor Materials Business Scale and fields expansion including M&A 	

JSR Group's Position



Semiconductor Market

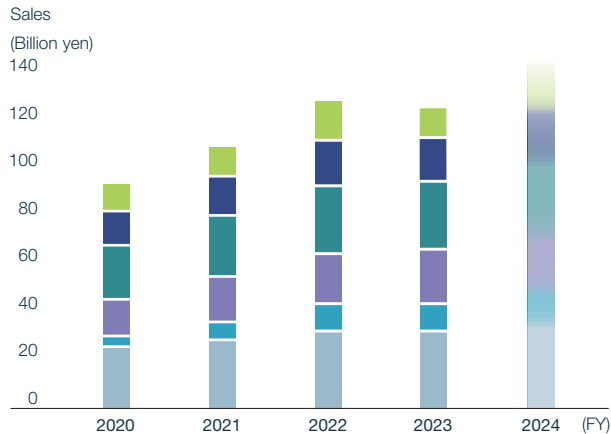


Acquired Next-Generation EUV Technology, Leading the Global Market with a Broad Product Portfolio

JSR Group has a global supply system built around R&D, manufacturing, and sales bases in Yokkaichi, the United States, and Belgium. We are working to optimize production processes and innovate technology while endeavoring to provide a steady supply of the products each customer needs. Moreover, in October 2021, we completed acquisition of Inpria, the world leader in design, development, and manufacture of metal oxide photoresists (MOR). The product is attracting attention as an EUV lithography technology for the further miniaturization of semiconductors. Currently, we are developing the MOR business through creating synergy with Inpria to bring mass production technology and quality control to the next level.

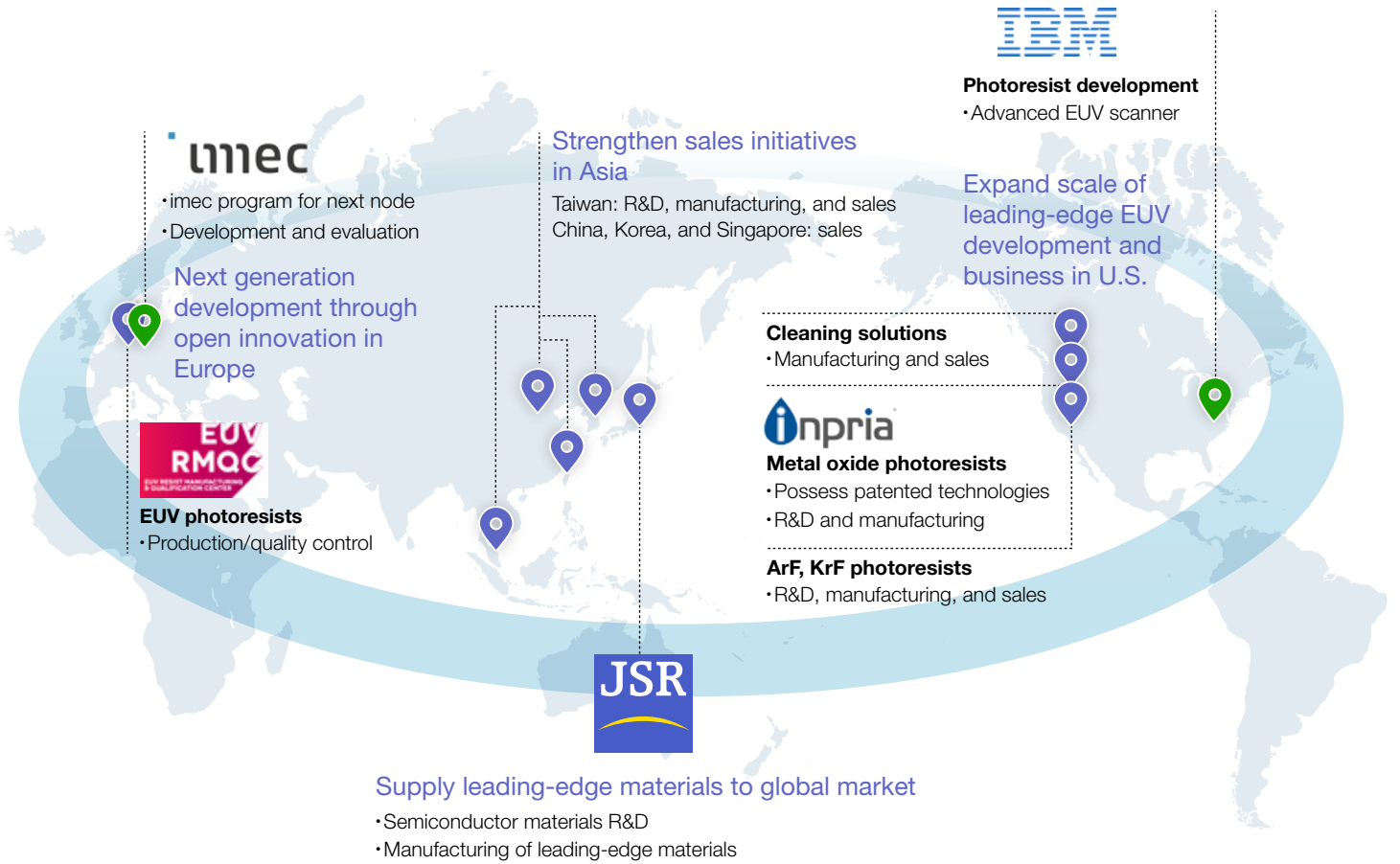
Semiconductor Materials Business Plan

- ArF ■ EUV ■ KrF and other lithography ■ Multilayer materials
- CMP/cleaning solution ■ Packaging materials, etc.



Semiconductor Materials Global Strategy

- 📍 JSR Group companies
- 📍 Joint R&D bases



Structural reforms

Optimizing the cost structure amidst the drastic change in the display market environment to focus on development and sales growth of cutting-edge materials

Optimizing the cost structure through business restructuring to expand sales and profits in the Chinese market

Since FY2020, JSR has implemented global business restructuring given the drastically changing display market environment. We closed our plant in Taiwan that was responsible for manufacturing color resist in March 2022, while scaling back production at our plant in South Korea. We shifted resources as the growing Chinese market has been positioned as the primary market as part of efforts to optimize our cost structure.

In the Chinese market, we have continued to grow our market share of highly competitive alignment layer and passivation coat and develop OLED materials in addition to responding to customers' production adjustments and addressing technical issues flexibly. This will ensure that we can build a business foundation that generates stable earnings.

Alignment layer and passivation coat are important materials that both improve panel performance such as high

definition and brightness and increase productivity in panel manufacturing such as yield and throughput. In the future, we expect to see an expansion in environmentally friendly applications such as low-temperature processes and PFAS-free, as well as AR/VR and outdoor public displays.

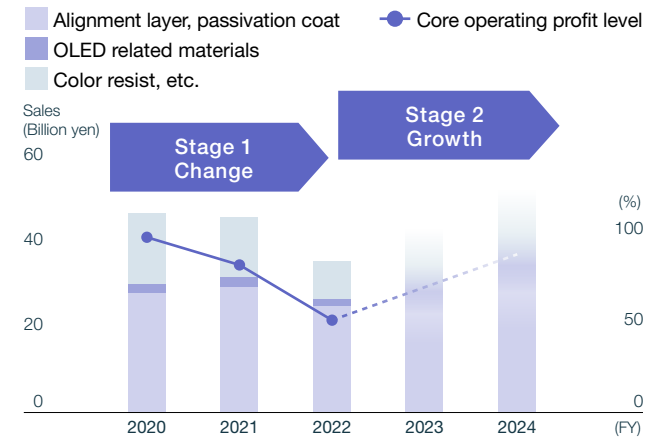
In addition to leveraging its business infrastructure in China, JSR will expand its provision of cutting-edge materials and process solutions to customers. We will achieve this by developing advanced platform technology in response to the evolution of panel technology and strengthening quality competitiveness. Also, we will maximize cash flow and establish a sustainable business structure for the LCD materials business as a moneymaker with high ROIC.

We will further reduce costs in response to the weakening market over the short term to increase revenue, while striving to steadily boost sales and revenue in the display market, which is expected to recover starting in 2023.

Focusing on development and increasing sales of cutting-edge materials utilizing our strengths

To capture the growing need for OLED materials in mobile and IT applications, we will focus on growing sales of low-temperature alignment layer materials that leverage our strengths, high refractive materials that increase light extraction efficiency, and low dielectric thin film encapsulation materials to expand our portfolio. In terms of passivation coat for LCDs, we will focus on developing the optical IPS market to expand sales.

Progress towards the business targets



* Assuming the core operating profit of FY2020 to be 100%

Business progress	Increase share in the Chinese market (alignment layer and passivation coat)
	Market penetration of new products (optic IPS/OLED)
	<ul style="list-style-type: none"> Complete business restructuring in response to change in the market structure (Stage 1) Optimize business and move towards growth phase (Stage 2)

Life Sciences Business

Achieving remarkable growth and driving innovation in the evolving Life Sciences

My role as President of Life Sciences LLC is to first ensure that our portfolio companies have the resources they need to be successful in their growth initiatives—both organic and inorganic. Second, my team’s responsibility is to seek out new opportunities where we can contribute to the market. We are expanding our Life Sciences Business with our leading affiliate companies.

Our results for FY2022 show that we are on track with 75% growth in revenues and 167% operating profit. However, we do see contraction of COVID-19 related products and services due to a worldwide deregulation. Otherwise, products and services will continue to grow at or near double-digit rates. We expect to boost operating margins further in FY2023.



Tim Lowery
Senior Officer

Business strengths

- Structured to facilitate processes spanning from the development of antibody drugs to their production
- Synergies leveraged between group companies possessing advanced expertise and technological prowess
- Expert support for the development of complex biopharmaceuticals
- Quality assurance system refined by the JSR Group’s Semiconductor Materials Business
- World-class technology and advanced solutions for mammalian cell line development
- Supplier of innovative materials to the diagnostic drug and bioproduction industries

CDMO

This business has a leading edge in complex protein analysis and is uniquely suited to support all stages of drug development from non-clinical and early-phase trials to commercialization.

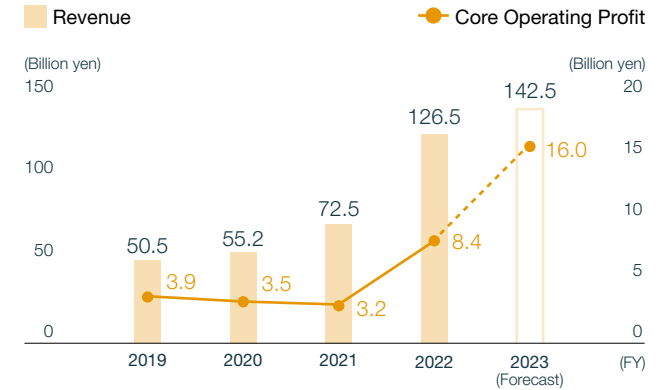
CRO

This business is a market-leading provider of services that support cancer drug discovery, and possesses advanced disease and organoid platforms, which include the world’s largest number of patient-derived xenograft (PDX) models.

Awareness of business environment

- Growing demand for medical products due to the aging of the population
- Ongoing advances in personalized medicine
- Increasingly efficient drug development
- Rapid and continuous technological advances

Revenue and Core Operating Profit



Core Operating Profit Gap Analysis (YoY)

	Revenue	Core operating profit	Business environment (FY2023 forecast)	
			1H	2H
Business overall	+75%	+167%		
CDMO	+Around 50%	Decreased profit		
CRO	+Less than 25%	Same as last year	→	↗
BPM	+Around 15%	Decreased profit		
IVD	+Around 200%	Increased profit		

CDMO: Contract development and manufacturing of biopharmaceuticals
 CRO: Contract research organization for pharmaceuticals
 BPM: Bioprocess materials
 IVD: Diagnostic reagent materials

Growth strategy

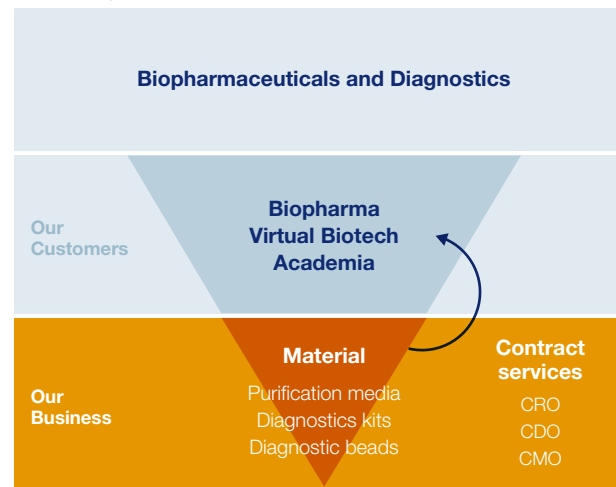
Aiming to Meet the Needs of the Biopharmaceutical Industry and Achieve Growth beyond Targets

The Life Sciences Business of JSR Group began when polymer technology developed in our petrochemical business, which began with material science, was utilized to make materials used in the manufacture of pharmaceuticals. Since then, we have acquired companies like KBI Biopharma, Inc., which offers biopharmaceutical contract development and manufacturing services, and

Selexis SA, which offers cell-line contract development services, and the Life Sciences Business has steadily expanded. The Life Sciences Business is furthermore meeting industry needs with CRO and CDMO services and unique materials to overcome the challenges of the biopharmaceutical industry today, namely long development times and high development costs.

	Revenue CAGR+20%	Core Operating Profit Margin 20%
Market	Scale	<ul style="list-style-type: none"> CDMO market total: \$6 billion (Biopharmaceuticals market: \$400 billion)
	Trends	<ul style="list-style-type: none"> High growth Precision medicine expansion
Social Value	<ul style="list-style-type: none"> Enhance efficiency of pharmaceutical development Realize personalized medicine tailored to patients 	
Strength	<ul style="list-style-type: none"> Capability to support development of very complex biopharmaceuticals 	
Strategy	<ul style="list-style-type: none"> Business expansion through customer pipeline expansion Creation of unique added value 	

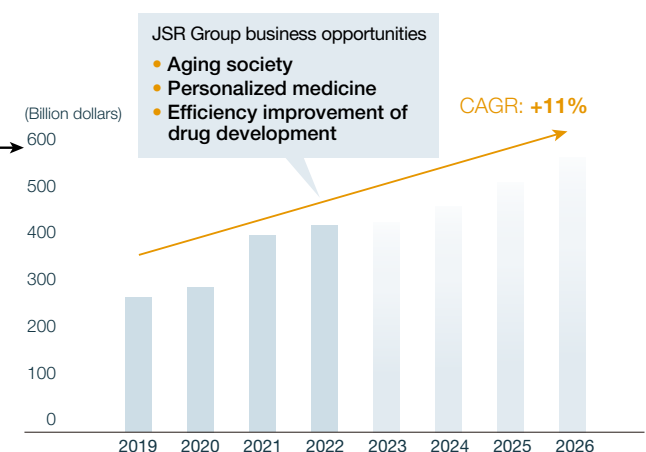
JSR Group's Position



Presently, the CDMO business accounts for about half of the revenue of the Life Sciences Business. The other half comes from the CRO business, from MBL, a company that became a wholly owned subsidiary in 2021, and from materials developed in-house (diagnostic and research reagents and bioprocess materials). The core operating profit margin was 6.7% in FY2022, but we are committed to increasing that margin by leveraging upfront investments to expand revenue.

Moreover, the segment is still in its infancy, and has ample room to boost profitability by expanding scale and further integrating into the Group. As we aim to further boost core operating profit margin, our targets to achieve by FY2024 are revenue of more than 100 billion yen and core operating profit margin of 20%. We will also reinforce technological development capabilities and other synergies across JSR Group.

Biopharmaceuticals Market



* JSR estimate

Strengthening Group Synergy and Aiming for Further Business Growth

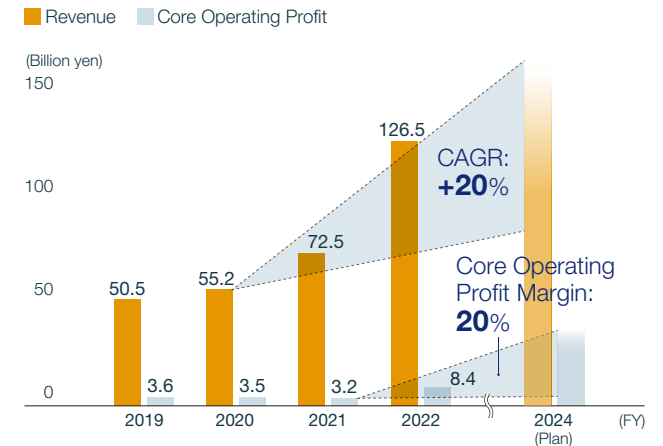
The Life Sciences Business of JSR Group supports the development of biopharmaceuticals and sells diagnostic reagents and bioprocess materials. To strengthen joint projects in Europe between KBI Biopharma and Selexis, which are engaged in the CDMO business, we newly expanded the Group's cutting-edge biopharmaceuticals production facility in Geneva, Switzerland. Moreover, in North Carolina, U.S., KBI Biopharma recently built an advanced commercial biopharmaceutical production facility to conduct joint projects with customers. These moves have roughly tripled our production capacity for animal cells. The two facilities are expected to contribute

to revenue once they are operating at full capacity.

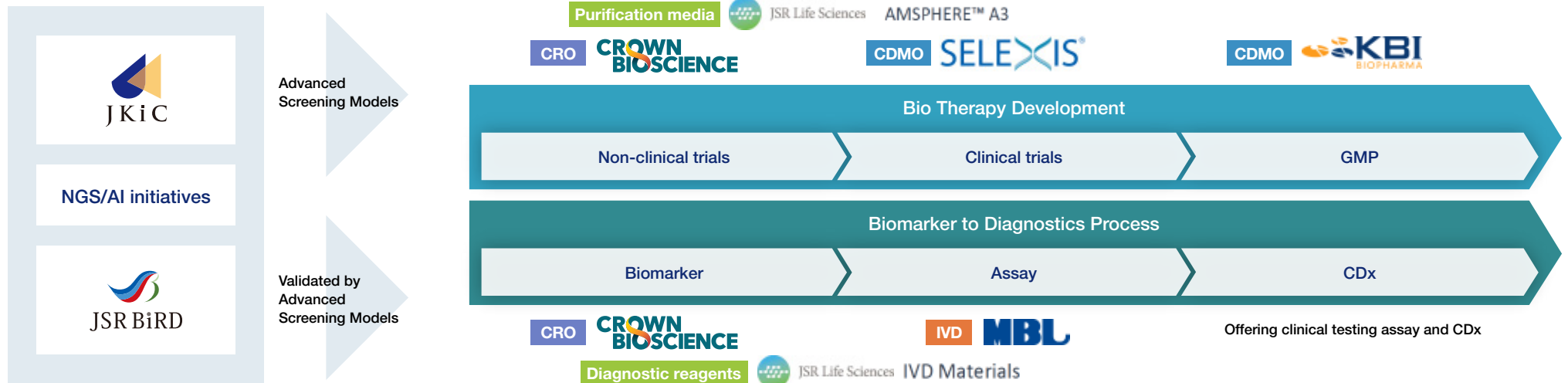
We are also aiming to speed up growth in Japan. To this end, in April 2022, Crown Bioscience International and Medical & Biological Laboratories (MBL) established a joint venture offering advanced preclinical services.

We will continue to use CDMO and CRO to spur business growth while practicing appropriate risk management. At the same time, we will reinforce Group synergy and tap open innovation to advance development of next-generation products as we aim for sales growth of at least 20%, which would outpace the market's own growth rate.

Progress and Outlook for Medium-Term Management Plan



Tap Group Synergy to Develop One-stop Services



Plastics Business

Promoting sales of our unique strategic products and initiatives aimed at carbon neutrality.

Techno-UMG Co., Ltd. has a legacy of being the first company in Japan to produce ABS resins back in 1963. At present, the company is a top manufacturer with over a 50% market share in Japan. The performance of this business is higher income and lower profit in FY2022, while higher income and profit is forecast in FY2023.

Within the automobile industry, where our main customers are located, as there is a demand for EVs, weight reduction, multi-functionality, and reduced environmental impact, our unique strategic products are widely used in automobile parts. In addition to increasing sales of products with such functional characteristics, we aim to also ensure profits by

responding to rising raw materials costs and fuel prices as appropriate. In addition, we will switch to fuels with lower CO₂ emissions at our plants, recycle products, and develop and sell products with less environmental impact in aiming to achieve carbon neutrality in 2050.

Kazumasa Yamawaki
Senior Officer

High-performance resin

Business strengths

- Development of strategic products using our proprietary technology
- Marketing capability to cultivate a wider and deeper market
- Global sales locations and SCM system
- Increased production efficiency and cost competitiveness through business integration

Awareness of business environment

- Recovery in automobile production volume
- Increased needs for EVs, weight reduction, and reduced environmental impact in automobiles

Environmentally recyclable resin

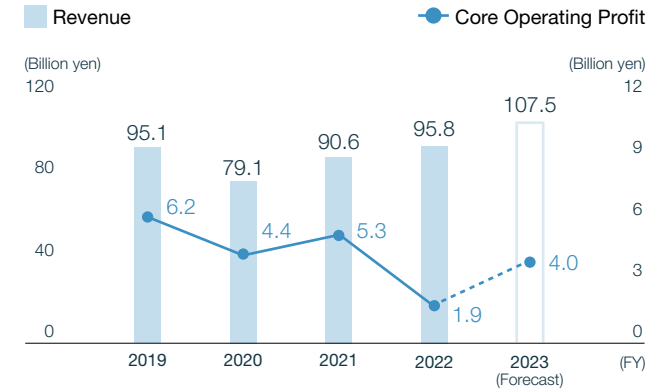
Business strengths

- Establish product life cycle through following promotion of a circular economy
- Research and development of biomass raw materials

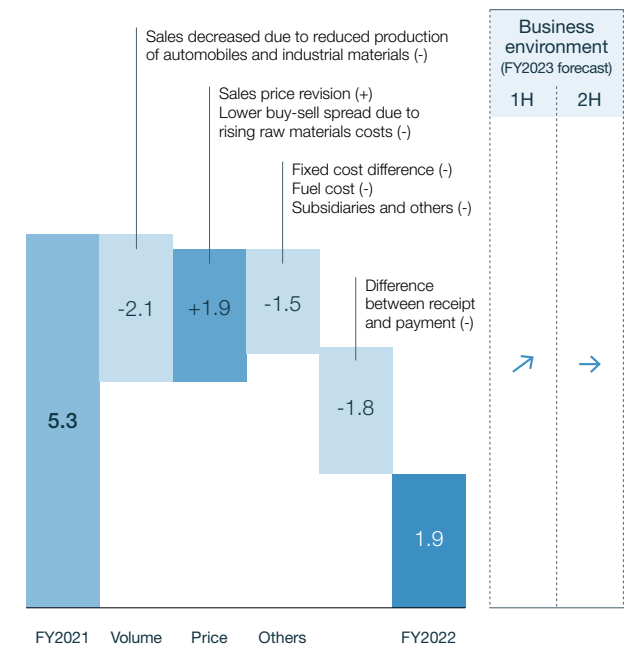
Awareness of business environment

- Demand for a carbon neutral, decarbonized society
- Response to biodiversity

Revenue and Core Operating Profit



Core Operating Profit Gap Analysis (Billion yen)



TOPICS

Plastics Business Strategic Products

HUSHLLOY™ Anti-Squeak Material

When plastic parts are joined together, rubbing between the parts can cause audible and unpleasant squeaks. This noise, caused by frictional vibration on the contact surface between plastic parts, is a major design consideration. HUSHLLOY™ styrene thermoplastic offers revolutionary properties that prevent squeaks to maintain a quiet vehicle interior. It also helps lower environmental impact since its effects last for the lifetime of the product.



Paint-less High Appearance Material VIVILLOY™

VIVILLOY™ is a highly colorable material for paint-less applications. We developed it based on proprietary polymer technology cultivated over many years of selling and supplying weather-resistant materials and composite plastic alloys around the globe. Though no paint is used, this product features color depth and vividness closely resembling paint for components with intricate shapes. Moreover, bypassing the painting process can contribute to lower overall costs for customers.



PLATZON™ High Adhesion Resin for Plating

PLATZON™ is a specially developed PC/ABS resin with excellent plating adhesion and processability. It exhibits stable plating adhesion performance under various molding and etching conditions, which makes it possible to achieve high yields.



Cultivate new markets and materials with improved texture

We showcased resin material for robotic applications at an exhibition in order to cultivate new markets. We developed a material with improved texture that is soft and pleasant to the touch using our proprietary polymer compounding technology. We maintained the excellent moldability characteristic of ABS resins, while made improvement on the hardness of resin and stickiness of elastomers to give the material a smooth and soft texture for it to have a wide range of applications in the robotic market. We aim to increase supply to the robotic market which is expected to grow going forward by providing materials with multiple functionalities.



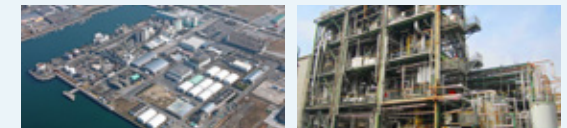
Molded products with design features

Initiatives Towards a Decarbonized Society

As the demand for transitioning to a decarbonized society increases by the day, we have established milestones aimed at carbon neutrality and are implementing initiatives across all departments and generations of employees. Techno-UMG Co., Ltd. is implementing a project aimed at achieving carbon neutrality in 2050. Moreover, we are considering implementing fuel conversion and switching to renewable energy use in order to reduce CO₂ emissions during production.

Materials to address customer and social issues

The Group contributes to addressing customer and social issues through its supply of highly functional materials created using its unique technical and development expertise. We have developed highly functional materials such as those that suppress squeaks, materials that have high weather resistance and can be used for a long time, materials that increase grip like rubber, etc., which could not be achieved in the past. In the future, we will continue to take on challenges of developing materials that will address social issues.



Production locations of Techno-UMG Co., Ltd. Ube Plant (upper left), Otake Plant (upper right), and Yokkaichi Plant (bottom left)

Message from the CTO

We are working to create value for the future by taking on new challenges associated with advanced technologies paving the way for social transformation.

Hiroaki Tokuhsa
Officer in Charge of New Research (CTO)



JSR Group has identified Materials Innovation as its corporate mission, and aims to continue to create value through materials to enrich society, people and the environment. In addition to utilizing our long-standing expertise in polymer chemistry, organic chemistry, photochemistry, biochemistry, computational chemistry, and analytical chemistry, we are advancing technology by accelerating digitalization, combination of technologies across different fields, and incorporation of open innovation in order to expand technological domains while providing sophisticated solutions to social issues. In addition, we also place emphasis on the understanding and pursuit of basic principles of science, including diving deep into analysis and evaluation technology. The accumulated experience and efforts gained through these R&D activities have become the Group's unique strength; not to mention, the driving force behind our global development of superior technologies, materials, and services.

We focus our research and development efforts on

Business Support Development which involves applied research in existing business areas, and Next Generation Technology Research, such as seed research where future growth is expected.

Among these, Business Support Development promotes integrated development activities with businesses by placing an emphasis on needs. Needs are identified via direct dialogue with development staff and customers, focusing on value chain cooperation within JSR Group. In addition, this branch of research strives to enhance technical services in each country in which we operate while developing a global and timely support structure for customers to promote their businesses.

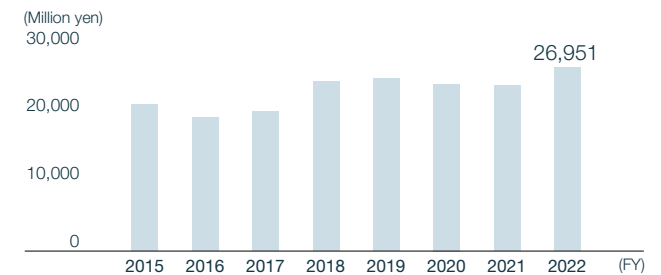
Regarding Next Generation Technology Research, we are promoting open innovation such as joint research with universities and research institutes in Japan and abroad, bringing in outside knowledge and technologies to overcome problems and create groundbreaking innovation, in addition to in-house research. To accelerate

the transformation of our research approach, we are constantly exploring possibilities for developing businesses in new fields and commercializing leading-edge research in novel areas for us.

Furthermore, we are advancing materials informatics, and implementing the practical application of data-driven research methods as another focus of the Group. We hope to promote digitalization and the construction of theoretical models for new data infrastructure, as well as the practical application of new approaches such as AI and quantum computing, to significantly improve the efficiency of R&D.

Society is undergoing major changes as we are currently facing unprecedented new crises, along with exposure to various geopolitical changes. Expectations on new technologies to meet these changes have grown larger than ever before. JSR carries out R&D with a curiosity for new technologies, and continues to provide values and advance co-creation with our customers, with whom we are closely linked in a wide range of business fields, and the partners who we cooperate with in a variety of environments.

R&D Expenses

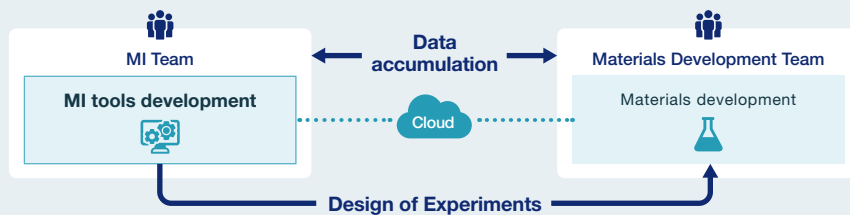


Advanced Case Study

Materials Informatics

Using materials informatics to dramatically increase development productivity

JSR's materials informatics development structure



JSR's main product group focuses on composite materials that mix various raw materials, and their functions are expressed by the formulation. There are countless combinations of these composites, and we have invested a great deal of time in their development. By implementing MI technology, which combines data science and conventional chemistry, as a tool used daily by our team for materials development, we are continuously improving MI tools in-house with the aim of dramatically improving the productivity of materials development. MI is a rapidly developing field and it is also characterized by the ability to immediately introduce the latest algorithms developed in academia into the field of materials development. For this reason, we are collaborating with external organizations such as the Institute of Statistical Mathematics and the Nara Institute of Science and Technology, and are also focusing on incorporating the latest technologies.

We want to create a situation where MI tools become commonplace at work, and they continue to evolve while constantly incorporating the latest algorithms. The interesting challenge of creating tools that no one has seen before has boosted the morale of team members.

Yuya Onishi

Research Fellow, Deputy General Manager, Materials Informatics Initiative, RD Technology and Digital Transformation Center, JSR Corporation

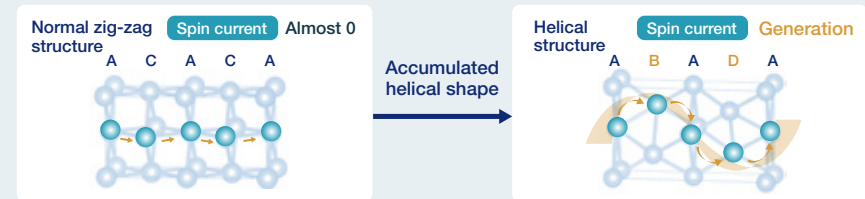


Advanced Case Study

Open Innovation

Joint research with department of physics, graduate school of science, The University of Tokyo to predict high-performance materials for next-generation memory

Predicted tungsten with helical structure



Following the explosion of information processing volume due to technological advances such as high-density arithmetic, AI, and communications, reducing the power consumption of semiconductors has become a serious social issue. Currently, the physical phenomenon of spin current without energy loss is attracting attention, and many studies are underway to utilize it in next-generation semiconductors.

The JSR-UTokyo Collaboration Hub called CURIE is conducting joint research with several laboratories of The University of Tokyo's Graduate School of Science to search for materials that generate spin currents using a computational method called evolutionary algorithms. As a result, we succeeded in predicting the formation of a giant spin current in a helical-distorted structure of tungsten crystals. This prediction method is expected to serve as a new guideline when looking into materials that generate giant spin currents, and to lead to the early realization of new functional devices that solve social issues.

This research result represents one example of an output that takes advantage of the merits of the JSR-UTokyo Collaboration Hub CURIE, which can closely conduct joint research with multiple laboratories of the Graduate School of Science of The University of Tokyo. With CURIE as a focal point, we will continue to contribute to society by accumulating materials innovation, bringing together theoretical calculations, solid-state physics, and materials technology and knowledge.

Kotaro Kubo

JSR-UTokyo Collaboration Hub CURIE
RD Technology and Digital Transformation Center, JSR Corporation

