





## Change for Growth

CORPORATE REPORT | 2022





Vision

# To become A Global Company for Global Society



Gaining understanding, trust, and empathy as a Company society needs

Be enthusiastic about our work



## **Sustainability Management**

Medium-term Business Plan (FY2021–2023)

## Change for Growth

#### Basic Strategies

- · Solve customers' and social issues
- Make economic value include social aspects
- Strengthen management base

#### **About this publication**

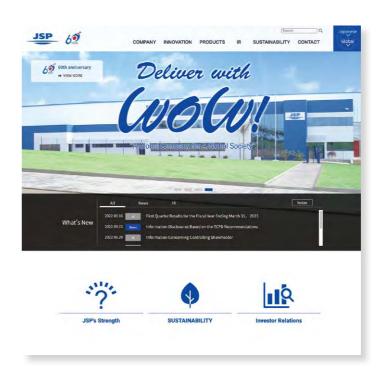
Based on our corporate philosophy of Creatively and Actively Contributing to Society, the JSP Group develops business with the aim of realizing our long-term vision. We have clearly defined sustainability management in the basic concept of the 2021–2023 Change for Growth medium-term business plan currently underway. This report contains specific information regarding sustainability management and materiality, which is also available on the JSP website.

#### Reporting period

April 1, 2021, to March 31, 2022 (Some sections refer to activities occurring on or after April 1, 2022)

#### **Forward-looking statements**

This publication contains forward-looking statements regarding management plans, strategies, and performance. These statements are based on Company determinations in light of information available as of March 31, 2022. Accordingly, information contained herein is subject to risks and uncertainties, and actual results may differ materially from those discussed in forward-looking statements.



JSP Website https://www.co-jsp.co.jp/english/

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#### **Toward Realization of Our Long-term Vision**

With deep appreciation for the support of all JSP stakeholders, we commemorated our 60th anniversary on January 24, 2022. Reflecting our long-term vision, VISION2027, we aim to become A Global Company for Global Society.

Around the world, pandemic restrictions on economic activities have been gradually relaxed, and economies are on a recovery track, especially with regard to consumer spending. However, amid the recovery, shortages in the supply of semiconductors and other parts, as well as soaring raw material prices, have combined to drive up inflation.

In Japan, although the impact of restrictions on economic activities and supply chain delays due to COVID-19 are steadily diminishing, prices have been rising and increasing economic uncertainty. This is due to the weaker yen caused by the differences in monetary policies between Japan and Western countries, as well as the impact of the situation in Ukraine.

In such a challenging environment, JSP will focus on the basic concepts of its new medium-term business plan, Change for Growth.

This requires that the value provided be expanded from solely economic value to include social value. As a results, it should be possible for the issues faced by customers and society may be resolved. Moreover, we will strengthen our management base in a bid to further enhance corporate value.

#### **Fiscal 2021 Business Performance**

Net sales grew year on year, due to an increase in sales of high-value-added products and product price revisions. At the same time, operating profit declined year on year. This is the result of, among other factors, price increases for a broad range of items, including raw materials which grew rapidly.

Extraordinary losses were mainly due to impairment losses at consolidated subsidiaries in Japan, together with losses stemming from fire damage at a consolidated subsidiary in South Korea.

As a result, fiscal 2021 net sales amounted to \$114,125 million (up 11.2% YOY). Operating income was \$4,589 million (down 11.5% YOY), ordinary profit \$4,868 million (down 11.8% YOY), and profit attributable to owners of the parent \$2,893 million (down 4.1% YOY).

In the extrusion business, sales volumes rose on increased sales of high-value-added products and the revision of some product prices. Despite the impact of skyrocketing raw material prices, profit also increased.

Sales of STYRENPAPER (foamed polystyrene sheets used in food packaging) and other materials for household products increased, due in part to price revisions. There was an increase in the volume of sales of MIRABOARD, a material used for advertising displays, although the sales volume of materials used for food trays decreased, after sales had marked temporary rapid growth a year earlier. That said, demand remains strong as people still tend to stay at home due to the ongoing pandemic. Net sales increased following product price revisions.

Sales of industrial materials, including MIRAMAT (foamed polyethylene sheets) for industrial packaging, and flat panel displays (FPDs) were higher year on year due to a significant increase in sales of high-value-added and general-purpose products.

Meanwhile, sales of MIRAFOAM (extruded board made of foamed polystyrene) and other construction and civil engineering materials decreased; year-on-year sales of materials used in the building construction and housing

#### Quantitative Targets

	FY2021 Results
Net sales	¥114.1 billion
Operating profit	¥4.5 billion
Operating margin	4.0%



Targets for Vision 2027 (Year ended March 31, 2028)
¥180.0 billion
¥18.0 billion
10.0%

markets were about the same; but sales of materials used for civil engineering applications were down.

As a result, extrusion business sales increased 3.9% to  $\pm 39,076$  million and operating profit rose 8.0% to  $\pm 2,782$  million. Although we anticipate higher sales in fiscal 2022, due to increased sales volumes and product price revisions, we expect raw material prices to continue rising, resulting in lower profits.

In the bead business, sales increased on recovery in demand, mainly in the automotive field. In terms of profit, despite efforts to promote product price revisions, the impact of skyrocketing raw material prices was substantial, pushing down profits.

Despite the impact of restrictions on activities due to the spread of COVID-19 variants and shortages of semiconductors and other parts, there was a moderate recovery in demand and an expanded use of new components in automobiles that, together, resulted in higher sales volumes and net sales.

This was noted in the areas of high-performance products such as P-BLOCK/ARPRO, which is expanded polypropylene that is used for bumper cores, seat cores, and other automotive parts; cushioning and packaging materials for returnable containers for various components; cushioning and packaging materials; insulation and cushioning materials for housing; and impact protection materials for athletic fields.

In Japan and North America, sales of P-BLOCK/ ARPRO increased slightly despite the impact of production adjustments by automakers. In South America, sales increased in the automotive field. In Europe, sales were strong in the automotive parts and other markets. In China and Taiwan, sales in the packaging materials sector increased

The sales volume of expandable polystyrene bead products, chiefly STYRODIA, decreased because of lower demand for these products in the fisheries and agriculture sectors. Although sales were up, mainly due to price revisions, further action is being taken in response to the ongoing rise in the cost of raw materials.

Sales of FOAMCORE, a hybrid molded product used in prefabricated bathroom unit ceilings and marine floats, increased mainly due to a recovery in demand.

Thus, beads business sales rose 14.4% to ¥68,513 million and operating profit slid 26.2% to ¥2,620 million.

Sales and profits are expected to increase in fiscal 2022, in line with a recovery in sales volumes and product price revisions.

In the others segment, sales of general packaging materials increased in Japan as sales in the automotive parts, transportation, and other market sectors recovered. In China, strong demand for packaging materials for many types of components resulted in higher sales. This caused sales in the others segment to strengthen 26.2% to ¥6,536 million, while operating profit grew 119.9% to ¥212 million.

In fiscal 2022, sales are expected to expand in line with higher sales volumes and product price revisions, while profits are also expected to rise for the same reasons.

#### **Fiscal 2022 Forecasts**

The outlook for the global economy in fiscal 2022 is becoming increasingly uncertain, due to the rising cost of raw materials as geopolitical risks continue to escalate. Other reasons include the absence of any signs of an end to global supply chain disruptions and lockdowns in China in response to the swelling number of COVID-19 cases.

Nevertheless, the global economy is expected to recover as pandemic-related restrictions are eased and countries continue to take measures to prevent the spread of coronavirus infections

In this difficult business climate, JSP is working on revising product prices to reflect the higher cost of raw materials, utilities, and logistics, while continuing to address sustainability management issues.

#### **Medium-term Targets, Achievements**

As a second step to realizing its long-term goal, VISION2027, JSP launched the Change for Growth medium-term business plan, covering the three years from fiscal 2021 to fiscal 2023.

Under this plan, we will promote strategies aimed at achieving further growth, focusing on the basic concepts of expanding the value provided by JSP in terms of both economic and social value. We will take steps to resolve issues faced by customers and society, and strengthen our management base.

Quantitative targets to be achieved by FY2023 include net sales of ¥120,000 million, operating profit of ¥7,700 million, and an operating profit margin of 6.4%. At the same time, management resources will focus on four growth engines: (1) automotive components, (2) building and home insulation materials, (3) flat panel display (FPD) surface protection materials, and (4) new business domains.

In fiscal 2021, the volume of automotive components sales grew 2% compared with fiscal 2019 (before the pandemic). Automobile production, which is an indicator of demand, continues to recover, but still is impacted by COVID-19 and shortages in semiconductors and other parts.

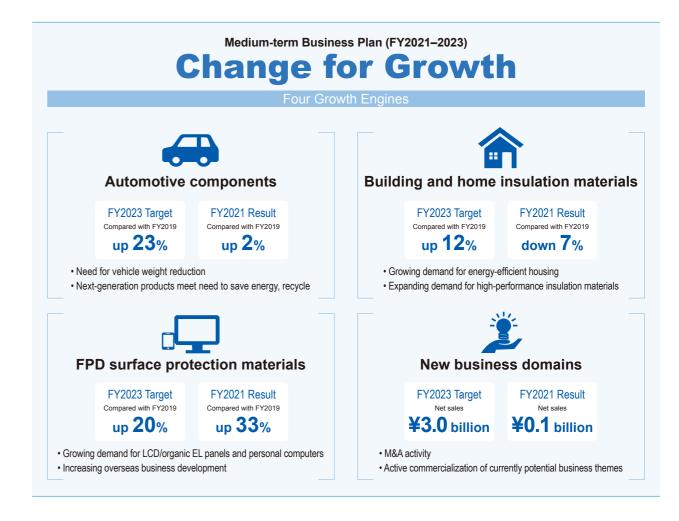
In fiscal 2022, the number of JSP automotive components used in manufacturing has been on the rise, despite concern over lockdowns in China and market stagnation due to geopolitical risks in Europe.

While the business environment is expected to remain uncertain, we aim to expand business by providing next-generation products compatible with electrification, weight reduction, energy conservation, and recycling requirements.

Regarding building and home insulation materials, the total sales volumes declined 7% compared with that of fiscal 2019. Although orders for homes were firm, delays were caused in new housing starts and home construction by the pandemic and shortages of construction equipment, semiconductors, and other components.

However, demand for energy-saving homes remains strong, and we continue to see higher sales of pre-cut thermal insulation materials, which is our strength. We expect business to grow, as demand for high-performance thermal insulation rises ahead of mandatory compliance with energy efficiency standards in fiscal 2025.

Sales of FPD surface protection materials increased 33% compared with fiscal 2019, achieving targets ahead of schedule in response to expanded production among JSP customers due to greater demand in China for personal computers, displays, and other products. Further growth is expected on higher demand for organic electroluminescence panels and personal computers, as well as overseas business expansion.



In new business domains, we are adding new businesses and M&A projects, while commercializing elements of our existing businesses that show potential. In January 2022, we made a 35% investment in GHEPI SRL, an Italian company, which has injection molding processing technologies. The injection molding market for

plastic products is large. In combining JSP foaming technologies with new injection technologies, we aim to promote the development of high-value-added products. We also plan to create new businesses, by tapping into the multiple synergies with areas of JSP business.

#### FY2023 Targets Compared with FY2020 Results



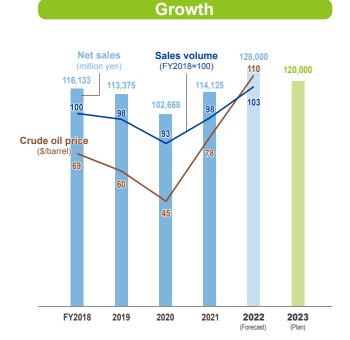
#### Quantitative Targets for FY2023

	(Billion yen)
Net sales	120.0
Operating profit	7.7
Ordinary profit	7.9
Profit attributable to owners of parent	5.2

#### Preconditions

- · Crude oil price: \$50 per barrel
- · Exchange rate: ¥105/\$1, ¥125/€1, ¥15/RMB1

Results, Forecast, and Plan









GHEPI holds a ceremony in April 2022 to mark its half century in business and the 60th anniversary of JSP.

#### **Strengthening Non-financial Capital**

JSP stakeholders increasingly are demanding that we strengthen our efforts in the areas of non-financial capital and information disclosure. We believe investment in human capital is critical to achieving sustainable growth.

To realize the basic concept—to fortify our management base—underpinning our Change for Growth medium-term business plan, we aim to improve our human resources development, augment our level of occupational safety, and foster a culture of a rewarding workplace.

In addition, as part of our Deliver with WOW! management policy that expresses our targeted actions and intentions, we aim to be a company where all employees work with enthusiasm.

Reflecting on the 60 years since our founding—during which time we have expanded through business

integration and the acquisition of overseas companies— JSP has welcomed a diverse array of human resources and cultivated a highly liberal corporate culture. In this atmosphere, which has remained flexible throughout, our diverse human resources—representing different genders, nationalities, and expertise—have interacted and taken on the challenge of creating new value.

THE NEW SHAPE

Yet, if we are to become a truly global supplier, even greater human resource diversification is necessary. For this, it is essential that we focus more than ever on developing our human resources. To this end, JSP will provide opportunities for growth through a wide range of experiences, in addition to acquiring specialized knowledge related to manufacturing, including foaming technologies, as well as quality and production technologies.

#### **Sustainability Management Challenges**

As we mark the 60th anniversary of our founding and the transition to the Prime Market, JSP is fully committed to sustainability management aimed at realizing our corporate philosophy of Creatively and Actively Contributing to Society.

In fiscal 2021, we identified material issues (materiality) in sustainability management, announced our support for the Task Force on Climate-related Financial Disclosure (TCFD) recommendations, and strengthened our climate change-related information disclosure.

Based on TCFD recommendations, we also disclosed climate change initiatives and greenhouse gas emission reduction targets.

Plastics have become an issue in terms of petroleum resource depletion and marine pollution. But we are confident that foamed plastic products contribute to sustainable society, since use of foamed plastics can help reduce the amount of plastic used.

Our mainstay product P-BLOCK/ARPRO, the world's first non-crosslinked polypropylene foam, is easy to recycle

and so contributes to a recycling-oriented society. The high functionality of the product helps create value that is unique to JSP.

By promoting advanced functionality in foamed plastic products and reducing the environmental burden through recycling and other efforts, we provide customers with new choices in all areas targeting sustainable product development. In the automotive field, the lightweight characteristics of foamed plastic products help reduce automobile energy consumption, while in housing, they support the realization of net-zero energy houses with their energy-saving heat insulation.

In the area of food containers, foamed plastic storage products reduce food loss; in civil engineering, foamed plastic contributes to improved workability and safety. Leveraging our groundbreaking technologies and accumulated know-how, we will continue expanding foam resin applications and deepening communication with clients about the functions required for those applications in order to further promote product development.

#### Identifying Material Issues



#### **Advancing Corporate Governance**

JSP continuously strives to enhance Group governance, since it is the foundation that supports sustainable corporate growth. In April this year, we set up a Special Committee on Governance to ensure fair, transparent, and objective conflict of interest transactions by controlling shareholder (parent company), appropriately protecting the interests of minority shareholders, and enhancing governance. These efforts show that JSP is a fair company that values shareholder interests and merits the trust placed in us by society.

Outside directors play a critical role in the development of JSP's governance structure. We hope to heighten the efficacy of the Board of Directors by making the best use of the knowledge and insights of outside directors. Thus, outside directors provide the Board with observations that facilitate extremely meaningful discussions.

JSP will continue to revitalize its Board of Directors, demonstrate the strengths of both internal and outside directors, and strive to enhance corporate value. Given our aim of becoming a truly global supplier, we will keep up our efforts to create a system of governance that realizes the appropriate level of compliance and risk management, based on evaluation standards shared with Group companies in Japan and overseas.

#### **To Our Stakeholders**

As a leading company in foamed plastics, JSP's mission is to establish an understanding in society that foamed plastic is a valuable material for the future of the world. We will continue to innovate foaming technologies, provide resource-saving and high-performance products, and create economic and social value.

In marking our 60th anniversary, we will accelerate our bid to become A Global Company for Global Society, to continue meeting the expectations and earning the trust of all JSP stakeholders. We look forward to your continued support.



Tomohiko Okubo
Representative Director and President

## **Our Value Creation Process**

JSP's mission is to use its business to contribute to society by providing value in the form of preserving resources and energy, and increasing convenience in social activities. Management aims to fulfill that mission by becoming a true global company creating value for society.

#### Input

(As of March 31, 2022)

#### Financial base

Total assets --- ¥134,527 million Net assets -----¥90,231 million

#### **Human resources**

Number of employees -764 Non-consolidated Consolidated-2,966

#### Manufacturing bases

Japan -11 • JSP · · Group companies-. 9 .15 Overseas

#### **Corporate Philosophy**

Creatively and Actively Contribute to Society

Deliver with Wolv!

#### **Business Model**

**Extrusion Business Bead Business** 

Foam plastic Global supply system



## Strengthen, expand existing businesses

## **Key elements**

Expand business













systems



# **Corporate governance**

#### Output

(For the year ended March 31, 2022)

#### **Consolidated results**

¥114,125 million Net sales-¥4,589 million Operating profit -Profit attributable to owners of parent -**¥2,893** million ROE (return on equity) 3.4%

#### Shareholder returns

¥50.0 Dividend per share Dividend payout ratio 51.5%

Number of accident-related stoppages

#### Occupational safety

11 0
JSP facilities* ····· 0
Group companies on same site as JSP facilities 2
Group companies not on same site as JSP facilities 3
Stoppage frequency
JSP facilities ······0%
Group companies on same site as JSP facilities 2.3%
Group companies not on same site as JSP facilities 3.9%
* Head office, sales offices, plants, development center, research centers, logistic center, recycling center, and new business development center

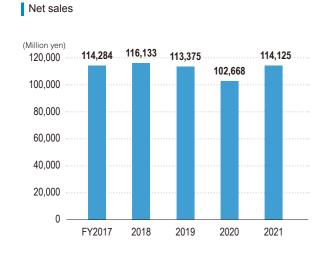
#### **Environmental protection**

Recycled waste plastic --- 5,476.6 tonnes 13 tonnes Landfill volume

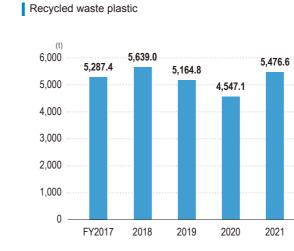
#### **Outcomes**

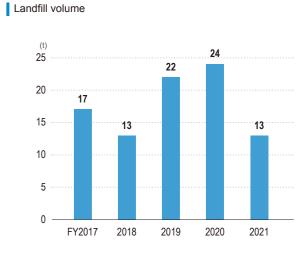


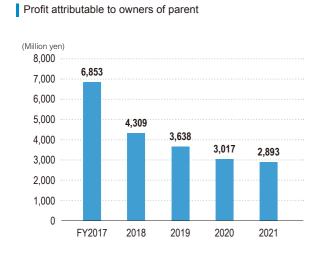
## Financial and Non-financial Highlights



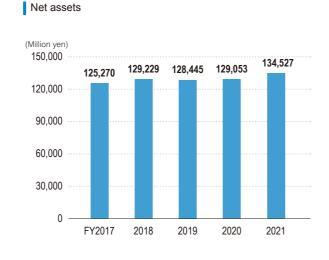


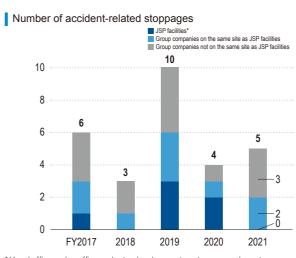


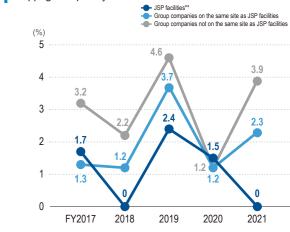




Shareholders' equity ratio





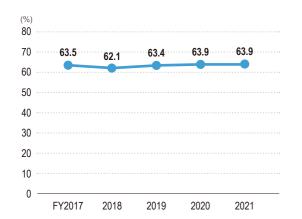


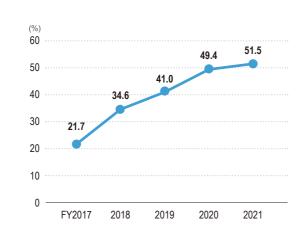
Stoppage frequency\*

\* Head office, sales offices, plants, development center, research centers, logistic center, recycling center, and new business development center

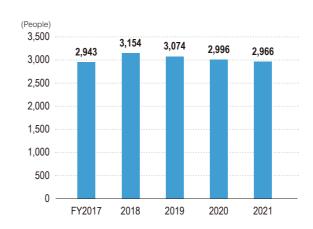
\* Number of casualties due to work accidents per one million actual working hours
\*\* Head office, sales offices, plants, research center, logistic center, recycling
center, and new business development center



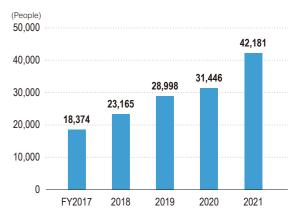




#### Number of employees (as of fiscal year end)



#### Number of shareholders (as of fiscal year end)



# Overview Extrusion Business

#### **Review, Future Outlook**

In fiscal 2021, although our Extrusion Business was impacted by the skyrocketing cost of raw materials, logistics, and power, on top of semiconductor shortages, we were able to achieve an operating profit close to the target set in the fiscal 2023 medium-term business plan.

This was due to significant growth in sales of flat panel display (FPD) surface protection materials, which are high-value-added products that represent one of our four growth engines.

However, since we expect the cost of raw materials, logistics, and power to continue soaring, selling price revisions will remain a top priority in fiscal 2022.

We will focus on developing strategic products that promote sustainability management, and accelerate the development of resource-saving, highly functional products leveraging the lightweight, heat-insulating, and shock-absorbing properties of foamed plastic. We will contribute to resolving social issues by providing new products with a smaller environmental impact.

#### **Living Materials Business**

In the Living Materials Business, which mainly comprises STYRENEPAPER (foamed polystyrene sheets used in food packaging), demand for general-purpose trays for fresh food declined slightly as pandemic stay-at-home demand cooled. At the same time, demand for side dish containers used for home meal replacement increased.

In fiscal 2022, we expect food container demand to recover. This will reflect the resumption of excursions, events, tourism, and other activities following the easing of pandemic restrictions, as well as the predicted increase in demand for takeout, delivery, and other food-related containers.

We plan to develop food containers that are environmentally friendly in terms of raw materials used and recyclability. Further, we will cultivate new applications for STYRENEPAPER, which has always excelled in resource and heat conservation and is easily recycled, adding even more value. We also will focus on developing containers for frozen food, to help curb food loss and other social issues, as well as develop the market for high-grade products that are heat- and oil-resistant, recyclable, and easy to hold even after microwaving.

#### Net Sales and Operating Profit





STYRENEPAPER (food containers)



MIRAMAT ACE (FPD surface protection materials)



MIRAFORM (building and home insulation materials)

#### **Industrial Materials Business**

In fiscal 2021, the performance of FPD surface protection materials was extremely favorable in terms of shipments for personal computers and televisions, driven by pandemic work-from-home and stay-at-home demand. The materials achieved 33% higher sales, exceeding the fiscal 2023 target of a 20% increase over fiscal 2019 sales volumes.

In FY2022, despite concerns about the impact of the lockdowns in China and other factors, we expect business to remain firm. Growth in the massive China market will be important for expanding demand for FPD surface protection materials.

Starting in 2022, we will dispatch personnel to Group company Kunshan JSP Seihoku Packaging Material Co., Ltd. in China, in a bid to strengthen sales activities. Amid an overall market slowdown, the basic strategy for this business is to communicate the value of JSP products and encourage customers to switch from other materials.

The need for FPD surface protection materials is expected to increase further, due to the higher quality and larger sizes of OLED, 8K, and other displays. To achieve more growth, we will provide products that contribute to the prevention of migration contamination and the reduction of defect rates in customer product manufacturing processes, as well as products that can withstand long-term storage.

## Construction and Civil Engineering Materials Business

Fiscal 2021 performance in this area of business was 4% lower than the fiscal 2023 target but 12% higher than fiscal 2019 sales volumes.

This was due to the supply of housing equipment (hot water heaters and other appliances) having been affected by a shortage of semiconductors and other parts which, in

turn, caused there to be delays in housing starts.

In addition, sales of MIRAFOAM \(\rangle \) (lambda), a strategic high-performance insulation material for housing, were limited due to difficulties in obtaining some secondary materials

At the same time, sales of pre-cut thermal insulation materials continued to grow. We will expand our business further by leveraging the strengths of this product, which include a shorter, simpler installation process and reduced industrial waste-related costs.

In the area of civil engineering materials,
J-WALLBLOCK, an expanded polystyrene (EPS) block
with wall surface material, is gaining market recognition for
its contribution to reducing time and costs associated with
construction. JSP expects sales of the product to grow
steadily in fiscal 2022.

The construction industry is expected to continue promoting the construction of net-zero energy and other energy-efficient housing. In addition to new energy-efficient homes, we will work to develop easy to install, high-performance insulation materials and construction methods that are easy to apply. These should help us capture business associated with the renovation of old homes that are not energy efficient.



Pre-cut thermal insulation material MIRAFOAM Λ (lambda)
Insulation materials pre-cut to customer specifications eliminate the need for cutting at the construction site, saving time and simplifying the installation process, leading to lower labor costs. Further, as no industrial waste is generated, disposal costs are also reduced.

#### TOPIC

## J-WALLBLOCK and Foam Support Construction Method Registered with NETIS

In June 2022, J-WALLBLOCK, which has a solid track record as a simple wall construction method for road retaining walls, and the Foam Support Construction Method, which uses EPS blocks and urethane foam together to reinforce bridges, were registered with the New Technology Information System (NETIS) operated by the Ministry of Land, Infrastructure, Transport and Tourism in Japan. JSP expects that NETIS will provide information that public works contractors and builders may pick up and so boost sales.



Foam Support Construction Method registered with NETIS.

#### Overview

## **Bead Business**



#### **Review, Future Outlook**

In fiscal 2021, the Bead Business recovered in terms of both sales volume and net sales compared with fiscal 2020 results, which reflect the negative effects of the COVID-19 pandemic. However, the results fell short of those attained in the 1st year of our medium-term business plan.

Further, in FY2021, automotive components—one of our four growth engines—saw the volume of sales increase just 2% over the fiscal 2019 level. This is in stark contrast to the target of 23% over the fiscal 2019 level set for FY2023, the final year of the current medium-term business plan. The poor sales mainly were due to shortages of semiconductors and other components, accompanied by an economic slowdown.

Business in the areas of P-BLOCK/ARPRO expanded polypropylene and STYRODIA expandable polystyrene (EPS) were impacted by a sharper-than-expected rise in raw material and fuel costs.

As a result, the outlook remains uncertain in the face of soaring resource and energy prices, stemming from conditions in Ukraine, as well as lockdowns and rolling blackouts in China, among other factors.

Currently, domestic business involving P-BLOCK and other high-performance materials has been affected by delays in the announcement of new car models. The delays are due to production adjustments, semiconductor shortages, and other considerations resulting from the impact of a seventh wave of COVID-19 on the automotive industry, which includes many JSP clients.

Nevertheless, STYRODIA and other EPS businesses are on a recovery track. At the same time, efforts to optimize prices, in response to high raw material costs, are beginning to bear fruit.

#### **Achieving Medium-term Business Plan**

Next-generation technology and product development strategies are key to achieving our medium-term business plan. Thus, given that our domestic high-performance, material-related business is based on the principles of sustainability and consideration for the environment, we will promote the development of new technologies and products. These will have higher added value and cost our customers less. In addition, we will increase the level of cooperation between the Sales and Development Departments.

In the automotive field, our Sales Department, with its knowledge of customer needs, and the Development Department, with its knowledge of technology, have worked together to achieve successful results.

#### Net Sales and Operating Profit





P-BLOCK/ARPRO (automotive components)



P-BLOCK/ARPRO (panels)



STYRODIA (molded components and beads)

In the past, one of our concerns was the timeconsuming process of creating prototypes by hand and conducting repeated tests during the design phase.

However, we now have in place a system that supports quick design, using simulation technologies that have been well received by our clients. We aim to create similar partnerships with more of our clients, which should go far in helping us achieve our medium-term business plan.

#### **Seizing Growth Opportunities**

We will use our Bead Business to focus on technological innovation and develop new markets from the perspectives of sustainability and environmental protection.

While the focus of P-BLOCK/ARPRO business overseas is on the automotive sector, we are expanding into non-automotive areas. These include food delivery containers, as well as noise, vibration, and harsh sound dampening components that benefit from the dampening and lightweight properties of foamed plastic.

In Japan, links have been forged to combine materials developed at the Yokkaichi Research Center with the molding technology and application development ability that has emerged from the Kanuma Research Center. As a result, new, high value-added products have emerged.

Our new product P-BLOCK LC, which reduces GHG emissions produced during the molding process, is already performing well on the market, having been adopted by automobile manufacturers.

In addition, we are planning to launch other polyethylene-based materials that incorporate biomass. In the domestic EPS business, which is facing a severe demand environment as the number of fish boxes,



JSP's P-BLOCK LC

This is an advanced, sustainable product with new features. A proprietary, low-carbon technology has been applied to create beads using an energy-efficient molding process. The beads incorporate the highest grade P-BLOCK to reduce GHG emissions, which are an issue facing customers. As seen in the image, each bead has a hole in the center, which is a unique technology born from JSP's long-term technological development efforts.

a mainstay product for the fisheries industry, has declined due to a marked decrease in yields. This has caused us to make every effort to expand sales of high-value-added products, including those that benefit from special functions, such as lost foam casting.

#### **Global Promulgation of One JSP**

Our Bead Business targets expansion through glocal ideas and activities, which depends on ascertaining common global issues and specific local issues. Currently, our most important global issue is how to expand our P-BLOCK/ARPRO business to markets around the world.

At the same time, we recognize such local issues as the need to support global customers who have different requirements. We have long sought to provide local market support at our overseas bases by appointing local regional personnel there to management and sales positions.

To date, we have done so successfully at our North American and European businesses. Now, to promote business glocally, we are working to inculcate the concept of One JSP throughout the Group. This will allow Group companies worldwide to work as one in promoting business.

Besides fostering this concept, we will make the investments necessary to enhance overall Group value. In other words, by leveraging One JSP—our global network—we will achieve business growth.

#### **Group Collaboration for Growth**

Our goal is to market P-BLOCK LC, MIRABLOCK BIO, recycled expanded polypropelyne, and other products with distinctive environmental value to meet the needs of each region our business serves.

Collaboration within the Group is critical to the development of these strategic products. It occurs among the Yokkaichi No. 2 and Kanuma No. 2 Plants (which produce beads), JSP Molding Co., Ltd. (which produces molded parts such as car bumpers) located on the same site, and the Development Department, as does targeted value-added manufacturing.

At the same time, the Group is working to devise a next-generation recycling system. Although our foamed plastics are highly recyclable, there is a need to collect customers' used products, crush them to reduce their volume, and transport them to our plants.

In Europe and North America, we have already set up recycling schemes for ARPRO, which is used widely, mainly in automobiles. That said, we will continue to expand our business, developing ever more products of social and economic value.

#### Creating Share Value through Sustainability Management

## P-BLOCK/ARPRO Transformation Strategy



## Highly Functional Materials Create Social, Economic Value

P-BLOCK/ARPRO is the world's first non-crosslinked polypropylene foam. Developed by JSP, it combines the features of light weight, recyclability, sound absorption, as well as shock absorption and recoverability. The foam is marketed worldwide and, as a strategic product, is one of the four growth engines on which we are focusing in our long-term vision: VISION 2027.

In this section, we introduce transformation initiatives designed to further our growth in the expanded polypropylene (EPP) area of business, which includes P-BLOCK/ARPRO—P-BLOCK being the brand name used in Japan and ARPRO that used abroad. The material creates economic and social value that will help resolve some of the current social issues.

#### **Technological Developments and DX**

While P-BLOCK/ARPRO has a global market share of more than 50%, to better communicate its social and economic value, JSP needs to increase brand awareness.

With a more appropriate brand strategy, we aim to expand the global market by underlining the P-BLOCK/ARPRO value proposition. The most critical issue here is the technological development framework, which should promptly respond to global environmental issues and contribute to customer businesses.

We are accelerating work on the required framework by strengthening the Yokkaichi Research Center's development of our bead production system, as we speed up promotion of digital transformation (DX). The manufacture of foamed beads from raw materials at our manufacturing bases in Asia is remotely monitored by production engineers in Japan. This allows us to more efficiently administer operations.

Moreover, through plant-wide labor saving, improved development capabilities, higher productivity, and other steps, JSP will continue promoting DX to enhance its P-BLOCK/ARPRO competitiveness.

## Strengthening Sales Structure, Expanding Applications

Although P-BLOCK/ARPRO has a strong reputation in the automotive field, to expand the business we must promote marketing efforts in other industries.

The material is being used for food delivery boxes in Europe, South America, as well as North America where, used by a major supermarket chain, it represents a solid first step in business expansion.

At the same time, we are promoting the product for use as an underlayment material for artificial turf at kindergartens and playgrounds, since it prevents children from injuring themselves even when they fall down. The product is also attracting attention in South America, for use in seedling cultivation.

Looking to areas of possible future growth, we are promoting sales to enterprises including global telecommunications equipment manufacturers, who use the product to package 5G devices. We are even considering expanding its use to new applications, such as home appliances that leverage its ability to dampen noise, vibration, and harsh sounds.



## International Structure, Next-generation Products

## **Global Development, Production Systems Boost Growth**

Overall, in the area of EPP business—which includes P-BLOCK/ARPRO—we are developing applications that meet market needs through a four-pronged system. With Japan at the core, we have development centers in North America and China, and an innovation center in Germany. With the collaboration of these bases, JSP is providing high value-added services to customers doing business around the world.

As an example, on receiving an inquiry for fuel cell components from a European parts manufacturer with production facilities in South Korea, we responded to the Company's customer needs by dividing up functions between a development center in Germany that handles the more difficult design work, and a manufacturing base in South Korea that handles mass production.

In addition, as part of our global growth strategy, we are aggressively pursuing investment activities. In 2022, for example, we invested in an Italian injection molding manufacturer, in order to create synergies and cultivate new markets by developing products combining foamed plastic and injection molding technologies.

Besides expanding development, we are enhancing production, as we keep an eye on market trends.

## Next-generation Products Compatible with SDGs

As we promote our P-BLOCK/ARPRO strategy, we remain cognizant of the need to contribute to the SDGs. Through our products, we both help reduce the environmental impact of our customers' business activities, and make our own manufacturing processes more sustainable.

Specifically, we promote development- and production-related resource conservation, having set up product recycling schemes in Japan, Europe, and North America. This is in addition to the work we are doing to generate applications that contribute to achieving the SDGs.

In connection with climate change, we are developing packaging materials for EV battery modules in the automotive field. For water safety, we provide foamed beads as a carrier to immobilize microorganisms at wastewater treatment facilities. And when it comes to marine-sourced food, we help conserve and sustainably use the oceans, seas, and marine resources by, for example, providing durable EPP products for seaweed and oyster farming floats in South Korea.

We hope to continue contributing to the achievement of SDGs through P-BLOCK/ARPRO growth strategies, and developing global markets as a brand that provides social and economic value.

### Creating Share Value through Environment-friendly Products

# Information Disclosures Based on TCFD Recommendations

USP declared its support for recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) in December 2021. Seeing climate change-related events as business risks, we aim to respond to them while identifying new opportunities to enhance corporate value.

In addition, the Company views the TCFD guidelines as an effective framework for lorganically and practically promoting activities to realize a sustainable society. It will use the TCFD as a tool for dialogue with various stakeholders.

By addressing climate change and as a true global supplier, JSP aims to increase its social and economic value, and realize its corporate philosophy: to Creatively and Actively Contribute to Society.



#### Governance and Risk Management

- JSP's response to climate change is based on Company-wide sustainability promotion
- The Board of Directors, chaired by the president, is responsible for governance, and responds to the impact of climate-related issues on management activities
- The Executive Officers Meeting is responsible for managing climate-related risks, carrying out reviews, and deciding responses
- In order to consider specific measures on climate change at the Executive Officers Meeting, information on global trends and requests is collected. The situation and risks then are analyzed on a cross-functional basis, through both sustainability promotion and responsible care activities
- ◆ Company-wide sustainability promotion

  The Board of Directors

  The Executive Officers Meeting

  The Sustainability

  Promotion Committee

  Entire Company
- The Sustainability Promotion Department, set up in April 2021, organizes the Sustainability Promotion Committee and ensures the effective functioning of Company-wide sustainability promotion activities, including responses to climate change
- The Sustainability Promotion Committee, an advisory body to the Executive Officers Meeting, convenes to discuss policies and steps to be taken on particularly important issues
- The entire Company—business divisions, corporate divisions, plants, research centers, group companies, etc.—implements sustainability promotion activities
- Specific issues related to the reduction of energy consumption and greenhouse gas (GHG)
  emissions are discussed at the Responsible Care Meeting, Energy Conservation Promotion
  Managers Meeting, and Environment Safety Promotion Meeting. By setting up these meetings,
  we have in place a system to manage and share essential information on energy use and GHG
  emission reduction



#### **Strategies**

-1

#### **Environment-friendly products**

All foamed plastics are resource-saving and environment friendly. Products made from such plastics help reduce environmental impact by reducing CO<sub>2</sub> emissions.

We will continue contributing to climate change mitigation by providing, and focusing on the widespread use of, climate change-responsive products. These are of significant help in countering climate change, boosting national land resilience, and assisting in disaster recovery.



#### Introduction of climate change-responsive products

MIRAFOAM  $\Lambda$  (lambda) is a high-performance, next-generation thermal insulation material. It was developed by JSP based on its accumulated plastic foaming technologies.

By adding special technology to MIRAFOAM, JSP has succeeded in improving the material's earlier insulation performance, which had been considered the limit of extruded polystyrene foam's ability to insulate. JSP now achieves a thermal conductivity of 0.022 W/m-K.

With the promotion of better thermally insulated houses, expectations are high that this revolutionary insulation material will make a significant contribution to reducing GHG emissions.

2

#### Plastic resource recycling





#### Introduce products that contribute to plastics recycling

Since ARPRO RE—expanded polypropylene made from recycled polypropylene—was first adopted in the market, we have developed ARPRO RE OCEAN, a product made from recycled raw materials, such as fishing nets and other marine-linked waste. In this way, we have expanded further our recycling activities, thereby helping reduce CO<sub>2</sub> emissions even more and reuse more marine waste. We have also developed ARPRO REvolution, a product that is made almost entirely of recycled raw materials.

3

#### Cut GHG emissions, use energy more efficiently



#### **Strategy Development**

#### Assumptions for Scenario Analysis

Target Year: FY2030

Target Entity: JSP Corporation (non-consolidated)

Scenarios:\* (1) In which the global average temperature increase is limited to 1.5°C above

pre-industrial levels.

(2) In which the global average temperature increase is 4°C above pre-industrial

levels

Procedures: Evaluate the impact of risks and opportunities on the entire Company's business

portfolio and develop response strategies

\* The scenario analysis was conducted using SSP-1 (sustainable) and SSP-3 (regional fragmentation) from the "Japanese SSP," published by the National Institute for Environmental Studies, based on the "Shared Socio-Economic Pathways (SSP)," published by the Intergovernmental Panel on Climate Change (IPCC).

#### Climate Change-related Risks, Opportunities, Key Responses

#### Transition risks, opportunities (1.5°C scenario)

#### Risks

- · Tightening of regulations on GHG emissions
- · Volatile raw material prices
- Degree of general consumer awareness of plasticfree products
- Introduction of carbon tax

#### Opportunities

- Expanding market for environment-friendly
- products
- · Growing market for goods made of recycled

#### resources

#### Physical risks, opportunities (4°C scenario)

#### Risks

- Disruption of business site (plants, offices, sales offices) operations due to severe weather.
- Negative impact of severe weather on supply chains

#### Opportunities

- Growing market for goods to boost Japan's national land resilience
- Expanding market for products to help Japan's disaster recovery and earthquake resistance

#### Key Responses

- $\cdot$  Contribute to climate change mitigation by cutting  $\text{CO}_2$  emissions, using energy efficiently
- · Contribute to recycling of plastic resources by promoting recycling
- Develop and promote environment-friendly products by tapping into creative technological development capabilities

#### Key Responses

- Develop BCPs for business locations ahead of climate change; prepare disaster countermeasures, such as flood barriers
- Assess physical risks for the company and its supply chain; use results to devise countermeasures



#### **Metrics and Targets**

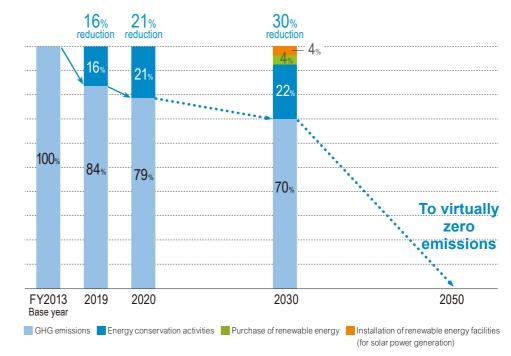
JSP has drawn up a roadmap to reduce GHG emissions and achieve carbon neutrality by FY2050. To achieve the targets, we will set non-consolidated JSP's GHG emissions at Scope 1 and Scope 2 as a KPI, and promote related initiatives. These will include the installation of renewable energy facilities (such as for solar power generation), the purchase of renewable energy, and further conservation of energy.

# GHG Emission Reduction Targets FY2030 FY2050 from FY2013 emissions 30% Virtually reduction zero emissions

#### Roadmap Assumptions

- Scope: GHG emissions of non-consolidated JSP at Scope 1 and Scope 2
- GHG reduction target: Calculated based on the Act on the Rationalization etc. of Energy Use

◆ GHG emission reduction roadmap (FY2013 = 100, as of June 2022)



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#### https://www.co-jsp.co.jp/english/





#### JSP Website

#### **IR** Information

- · To Individual Investors
- · Management Policy
- · Financial Performance
- · IR Events
- · IR Library
- · Corporate Stock- and Bond-related Information
- Frequently Asked Questions

https://www.co-jsp.co.jp/english/ir/



#### Sustainability

- $\cdot \, \text{Message from the President} \\$
- · Sustainability Management
- Environment
- ·Society
- · Corporate Governance
- · Responsible Care
- · Stakeholder Engagement

https://www.co-jsp.co.jp/english/sustainability/





