

1H FY2023 Presentation Material

- Results for 1H FY2023 & New Medium-Term Management Plan -

December 6, 2023

OSAKA SODA CO., LTD.



Recovery Status: Main Equipment Malfunctions in AC Production Facility

Situation to Date

April 4	Main equipment of Allyl Chloride (AC) manufacturing facility at Mizushima Plant was suspended due to malfunctions
May 8	Resume production of some products
June 13	Partial repairs to improve manufacturing capacity to approx. 70%
July 27	Recurrence of malfunctions in main AC production equipment
August 11	Resume production of some products
November 21	Restored of manufacturing capacity to approx. 70%

Future Outlook

In March 2024, AC production facilities will be fully restored during the regular maintenance.

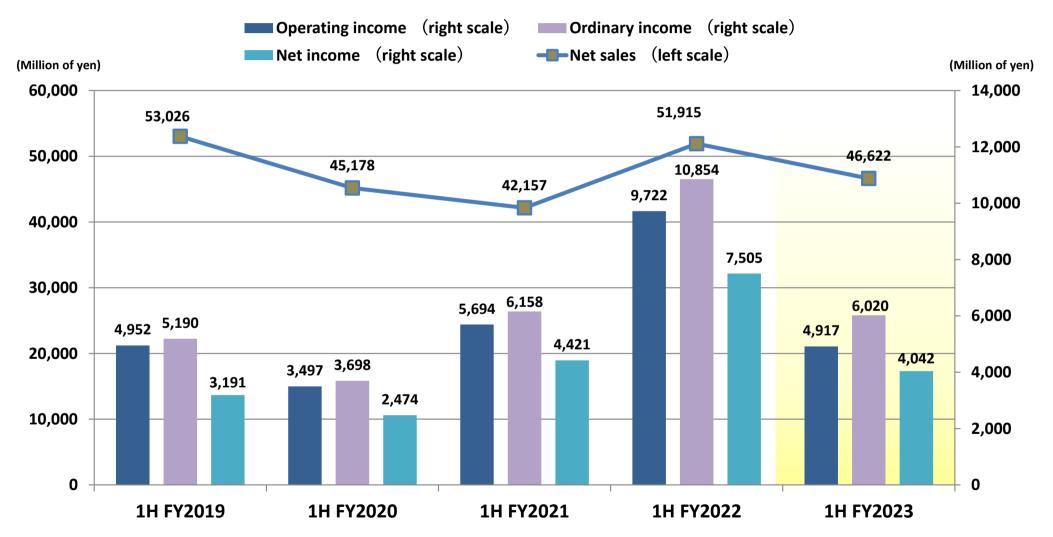
We apologize for any inconvenience and concern this may cause, and will continue to work toward a full recovery as soon as possible.



Results for 1H FY2023

Earnings Trends

Lower sales and profits due to the impact of main equipment malfunctions in AC production facility and sluggish demand in Japan and overseas



^{*} The Accounting Standard for Revenue Recognition has been applied since FY2021

Overview of Consolidated Financial Results

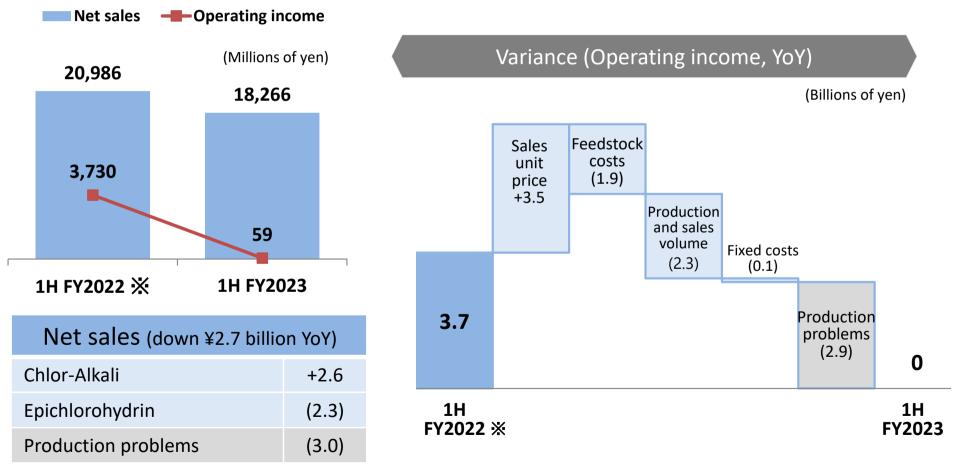
- The impact of production problems was ¥3.5 billion in net sales and ¥3.3 billion in operating income
- Each stage of profit declined YoY but exceeded the initial forecast

	1H FY2	022	1H FY2023		1H FY2023		1H FY2023		Change	%Change	Initial forecast	Achievem	Change
(Million of yen)		to sales	(A)	to sales	(YoY)	(YoY)	(B)	ent rate	(A)-(B)				
Net sales	51,915	-	46,622	-	(5,293)	(10.2%)	51,000	91.4%	(4,378)				
Operating income	9,722	18.7%	4,917	10.5%	(4,805)	(49.4%)	3,600	136.6%	1,317				
Ordinary income	10,854	20.9%	6,020	12.9%	(4,834)	(44.5%)	4,100	146.8%	1,920				
Net income	7,505	14.4%	4,042	8.7%	(3,463)	(46.1%)	2,800	144.4%	1,242				
Earning per share	¥314.73	-	¥158.91	-	-	_	-	-	-				
Overseas sales	20,299	39.1%	14,540	31.2%	(5,759)	(28.4%)	-	-	-				

Assumptions		1H FY2022	1H FY2023
Average	Yen / USD	130 Yen	139 Yen
exchange rate	Yen / Euro	137 Yen	151 Yen
Naphtha price (Yen / KL)	83,750 Yen	64,500 Yen

Segment (Basic Chemicals)

- Chlor-Alkali: Price revisions due to higher fuel and raw material prices contributed
- **Epichlorohydrin**: Affected by the shipping adjustments caused by production problems and the sluggish demand for epoxy resins



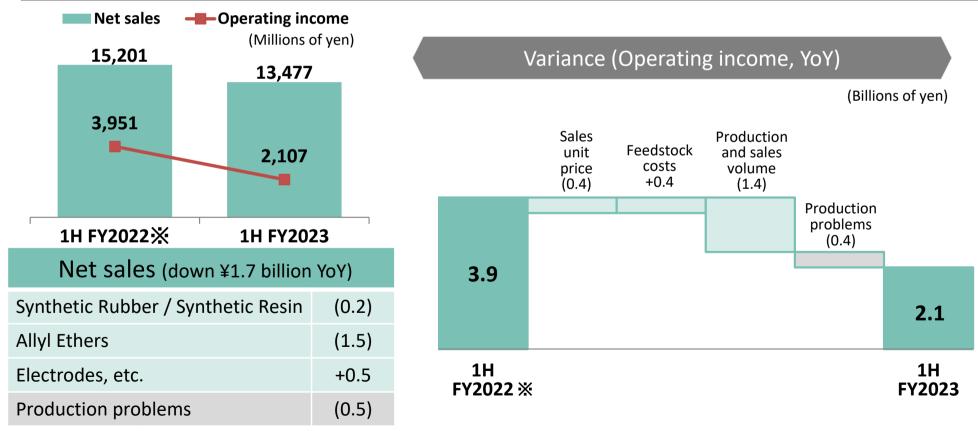
^{*}Figures by segment for FY2022 are approximate figures reclassified into new segments





Segment (Functional Chemicals)

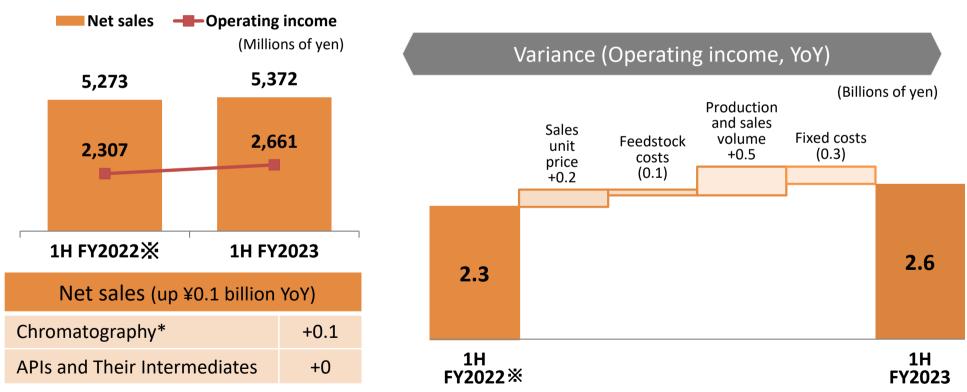
- Synthetic Rubber: Automobile productions has recovered, Alternative demand from other materials in line with stricter environmental regulations was increased in Epichlorohydrin rubber, New adoptions are increased in Acrylic rubber
- Synthetic Resin: Limited recovery in demand for UV inks, Demand for China is firm but for Japan, Europe, and the United States is sluggish
- Allyl Ethers: Demand for Silane coupling agent has been sluggish particularly for functional paints, in addition to shipping adjustments caused by production



*Figures by segment for FY2022 are approximate figures reclassified into new segments

Segment (Healthcare)

- Chromatography: Demand is expanded for diabetes treatments applications in Europe, the United States, and Asian markets
- APIs and their intermediates: Sales of nucleic acid drug substances, anti-ulcer drug intermediates, and insomnia treatment drug intermediates expanded
- **Expansion plans**: Completion of new silica gel production facility by 2024 at Matsuyama Plant, Promoting expansion plans for completion of new silica gel production facility and expansion by 2026 at Amagasaki Plant

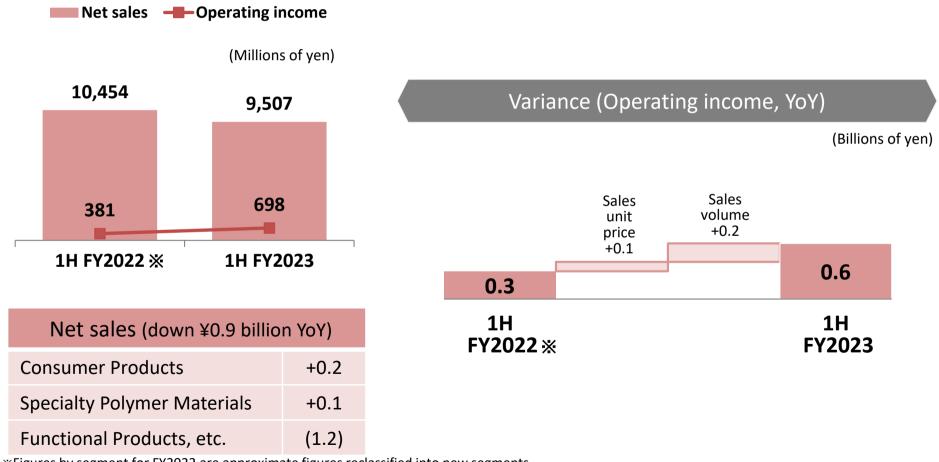


^{*} Pharmaceutical purification materials(Silica gel), analytical equipment, packed columns **Figures by segment for FY2022 are approximate figures reclassified into new segments



Segment (Trading and Others)

- Consumer Products: Sales of Housing Facilities continued to expand from the previous fiscal year
- **Specialty Polymers Materials**: Sales of Photosensitive Resin and products for water-treatment increased steadily
- Functional Products: Sales of electronic materials products was sluggish



^{*}Figures by segment for FY2022 are approximate figures reclassified into new segments



Balance Sheet, Statement of Cash Flows

Constructed a stable financial base, and maintained a high level of equity ratio in the 70% range
 Capacity building investment in the new medium-term management plan and investment for maintenance and production efficiency including strengthening of facility management, can be sufficiently supported

(Million of yen)	1H FY2022	FY2022	1H FY2023	Change from 1H FY2022
Total assets	138,018	138,029	146,439	8,410
Net assets	99,750	99,543	105,928	6,385
Shareholder's equity ratio	72.3%	72.1%	72.3%	0.2%
Interest-bearing debt	7,172	7,664	7,673	9

(Million of yen)	1H FY2022	FY2022	1H FY2023	Change from 1H FY2022
Cash flows from operating activities	5,922	9,354	5,149	(773)
Cash flow from investing activities	(3,005)	(5,380)	(815)	2,190
Cash flow from financing activities	(1,339)	(4,596)	(1,167)	172
Cash and cash equivalents	39,288	36,843	40,450	1,162



Forecast for FY2023

Forecast for FY2023

- Full-year earnings forecast remains unchanged from initial forecast
- While healthcare business is expected to grow, there are concerns about sluggish demand due to factors such as slow economic recovery in China
- Full recovery of AC production facilities is on schedule as originally planned,
 Plan to implement initiatives looking ahead to production recovery in the second half

		FY 2022		FY2023 Fo	FY2023 Forecast		e (YoY)
(Million of yen)			To sales (%)		To sales (%)	Amount	Percentage (%)
Net sales		104,208	-	105,000	-	792	0.8
Operating inco	me	15,557	14.9	10,000	9.5	(5,557)	(35.7)
Ordinary income		17,164	16.5	11,100	10.6	(6,064)	(35.3)
Net income		10,570	10.1	7,500	7.1	(3,070)	(29.1)
Earning per sha	are	428.43 yen	-	294.81 yen	-	-	-
Overseas sales		39,675	38.1	37,200	35.5	(2,475)	(2.6)
Assump	tions	FY202	2	FY202	23	-	
Average	Yen / USD		134 Yen		137 Yen		
exchange rate	Yen / Euro		140 Yen		150 Yen		
Naphtha price (Yen / KL)		75,	,500 Yen	63,500 Yen			

FY2024 Forecast by Segment

- Basic chemicals: The impact of malfunctions in AC production facilities will be mitigated
- Functional chemicals: Maintain and expand sales share
- Healthcare: Continue to perform strongly due to growth in demand

	FY2022*		FY2	023 Fore	cast	Ch	ange (Yo	Y)		
	(Million of yen)	1H	2H	Full Year	1H	2H	Full Year	1H	2H	Full Year
	Basic Chemicals	20,986	21,336	42,322	18,266	23,634	41,900	(2,720)	2,298	(422)
	Functional Chemicals	15,201	16,659	31,860	13,477	16,423	29,900	(1,724)	(236)	(1,960)
Net sales	Healthcare	5,273	5,002	10,275	5,372	6,228	11,600	99	1,226	1,325
	Trading and Others	10,454	9,296	19,750	9,507	12,093	21,600	(947)	2,797	1,850
	Total	51,915	52,293	104,208	46,622	58,378	105,000	(5,293)	6,085	792
	Basic Chemicals	3,730	1,118	4,848	59	541	600	(3,671)	(577)	(4,248)
	Functional Chemicals	3,951	2,447	6,398	2,107	2,043	4,150	(1,844)	(404)	(2,248)
Operating	Healthcare	2,307	2,308	4,615	2,661	2,689	5,350	354	381	735
income	Trading and Others	381	607	988	698	452	1,150	317	(155)	162
	Company-wide, eliminations	(648)	(645)	(1,293)	(609)	(641)	(1,250)	39	4	43
	Total	9,722	5,835	15,557	4,917	5,083	10,000	(4,805)	(752)	(5,557)

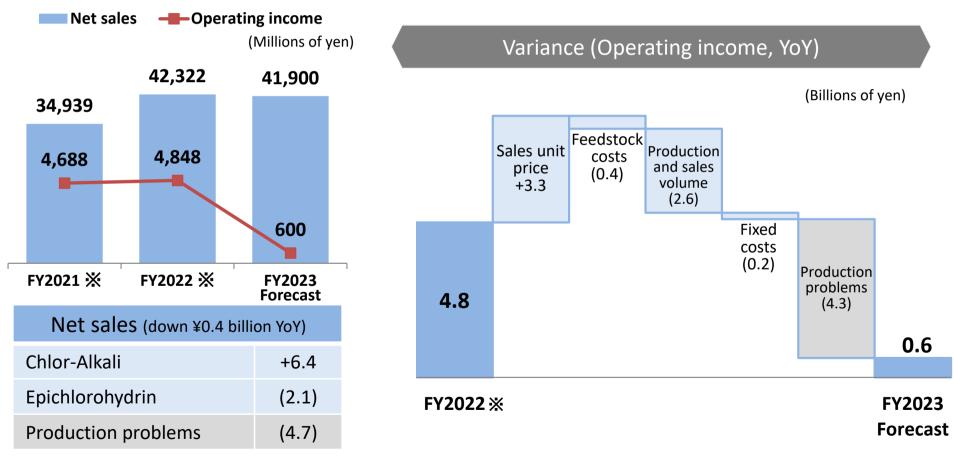
^{*}Figures by segment for FY2022 are approximate figures reclassified into new segments





Segment (Basic Chemicals)

- **Basic chemicals**: The impact of production problem will be mitigated and production will recover
- Chlor-Alkali: Secure sales volume through a sales policy that responds to fluctuations in fuel and raw materials prices
- **Epichlorohydrin**: Increase sales volume by eliminating shipping adjustments due to production problems

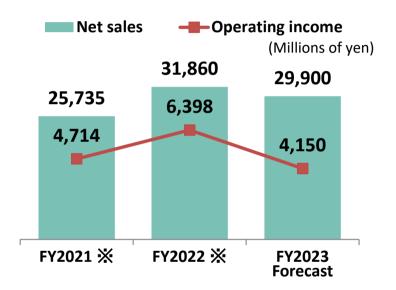


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Segment (Functional Chemicals)

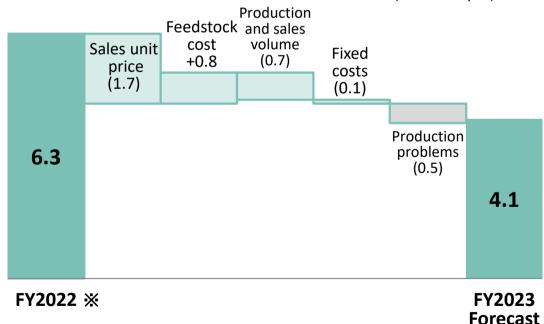
- Synthetic Rubber: Automotive manufacturing volume will continue to recover, focus on acquiring new adoptions in Japan and overseas in Acrylic Rubber
- Synthetic Resin: Capture recovered demand for UV ink and insulating varnishes, mainly in China
- Allyl Ethers: Expand sales for Silane coupling agent such as functional paints



Net sales (down ¥1.9 billion YoY)					
Synthetic Rubber/Synthetic Resin	+6.0				
Allyl Ethers	(0.9)				
Electrodes, etc.	(1.0)				
Production problems	(0.6)				

Variance (Operating income, YoY)

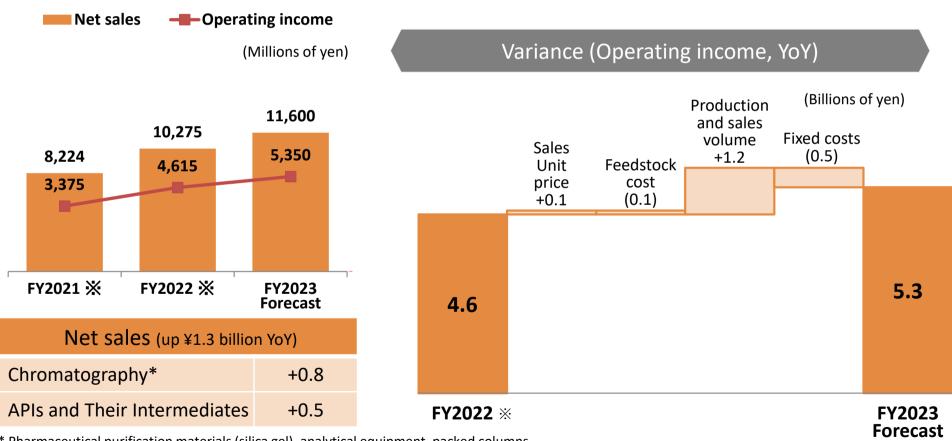
(Billions of yen)



%Figures by segment for FY2021 and FY2022 are approximate figures reclassified into new segments

Segment (Healthcare)

- Chromatography: Expand sales for diabetes and the rapidly expanding obesity medications utilizing the enhanced capacity of Amagasaki plant, focus on the sales of a new lineup of packed columns
- APIs and their intermediates: Increase orders due to new facilities (PI-3) at Matsuyama Plant



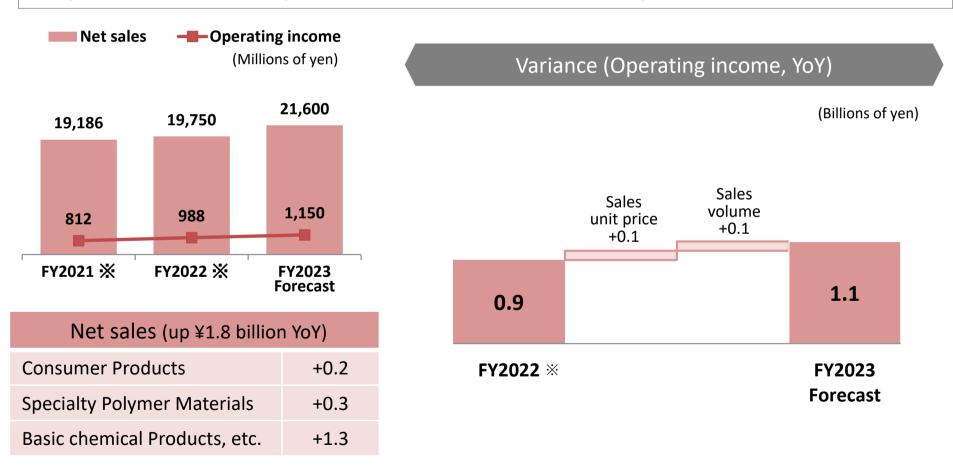
^{*} Pharmaceutical purification materials (silica gel), analytical equipment, packed columns



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Segment (Trading and Others)

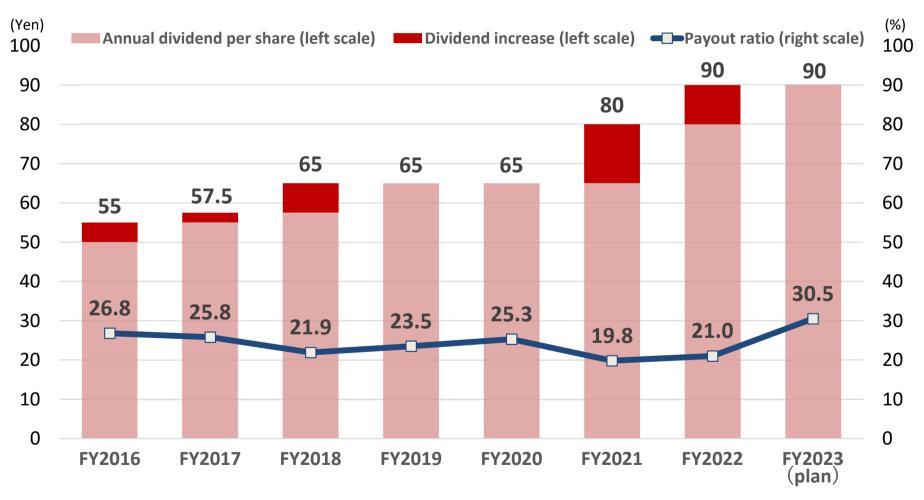
- Consumer Products: Sales of Housing Facilities will remain strong
- Specialty Polymer Materials: Sales of photosensitive resin increased due to recovery in printing demand
- Basic Chemical Products: Expand sales of new products for semiconductors, in addition to price revisions that responds to fluctuations in raw material prices



^{*}Figures by segment for FY2021 and FY2022 are approximate figures reclassified into new segments

Shareholder Returns

- In FY2024, plan to continue an annual dividend at ¥90 which was increased in FY2023
- During the new medium-term management plan, we aim to maintain stable dividends and to achieve a total shareholder return ratio of 40% by utilizing the stock buy backs



^{*} Dividends per share before FY2017 are converted to figures after the reverse stock split in October 2017



New medium-term management Shape the Future - 2025

To realize "Our ideal image"

- In 2021, we formulated a long-term vision based on the "Our ideal image" that marks the 120th anniversary of our founding
- 5 years to implement the realization of Our ideal image which is a milestone of our vision for 2025

To putting the philosophy system into practice and rooting it in the corporate culture

- Build a resilient and flexible business foundation supported by the Chemicals, Functional Chemicals and Healthcare businesses
- Create next-generation pillars of earnings in the fields of Mobility,
 Information and communication, Environment and energy, and Health and healthcare
- Become a company where employees can fully demonstrate their abilities

FY2035
Our ideal image

To contribute to the realization of a safe and affluent society through our creative technologies and innovative products Be a corporate group that provides new value to society through chemistry MISSION **Group Mission Statement** VISION **Vision Statement VALUE Conduct Guidelines Human Resources Policy**

FY2025 Our vision

Challenges to realize "Our vision"

- The previous 2 year mid-term management plan was set as a "period for accumulating power" to realize our vision
- Under the new mid-term management plan, We will strive to achieve our vision in 3 years

Our vision for FY2025

- For the Basic chemicals business, strengthen resistance to changes in the business environment and generate stable profit by reinforcing existing businesses, creating new businesses, and expanding the scale of business
- For the Functional chemicals business, maintain and expand the market share of global niche-top products as Osaka Soda's growth engine by expanding existing businesses and developing new applications and materials
- For the Healthcare business, expand into growth fields such as biopharmaceuticals in response to changes in pharmaceutical modalities
- Establish a development system for the continuous launch of new products

Shape the Future-2025 (FY2023 to FY2025)

Utilizing the foundation built in EMPOWER THE NEXT-22 and working on Continuous strengthening of our base in existing businesses, Strengthening of new product creation capabilities, and Promotion of sustainability management, we will realize our vision for FY2025

EMPOWER THE NEXT-22

(FY2021 to FY2022)

Building a foundation for sustainable growth under the 4 basic policies of Building a resilient business foundation, Promotion of market-in-type development, Efforts to achieve the SDGs, and reforming corporate culture and organizational culture





Summary of EMPOWER THE NEXT-22

Built a foundation to challenge our vision, worked on identifying issues and formulating measures to achieve

Building a resilient business foundation

Positioned basic chemicals, functional chemicals and healthcare as a core business and promoted resilience strategy

- ✓ Commencement of divisional organizational management
- ✓ Expansion of manufacturing capacity (Allyl Ethers, Healthcare)

Challenges

Further strengthening of 3 core businesses and expanding the scale

Promotion of market-in-type development

Aimed to build a system for early market launch by understanding customer needs through collaboration between business division and R&D division

- ✓ Implementation of progress and revision of development themes based on the DR system
- ✓ To establish an internal framework for promote development themes

Challenges

Improvement of management ability
Strengthening Company-wide Efforts for Market-In-Type Development

Efforts to achieve the SDGs

Aimed to build a system that contributes to the realization of a sustainable global environment through our corporate activities

- ✓ Establishment of a system for promoting sustainability (basic policy and committee)
- ✓ Settings materiality and KPI

Challenges

Promotion of sustainability measures and expand of disclosure

Reforming corporate culture and organizational culture

Reformed our business system and personnel system, and raised the level of our organizational and human resources capabilities through business reform activities

- ✓ Promoting the Reform of Corporate Cultures and Organizational Cultures under the new corporate philosophy system
- ✓ Revisions to the personnel system and Renewal personnel training policies
- ✓ Start updating the core system

Challenges

Establishment of business reform activities in each division



Shape the Future - 2025

Promote important measures based on basic policies and aim to achieve record-high performance in FY2025

Performance targets (FY2025)

Net sales ¥123 billion Operating income ¥18 billion ROE 10.0% or more

Assumptions						
Yen / USD	¥130					
Yen / Euro	¥140					
Naphtha price (Yen / KL)	¥63,000					



*Adopted the Accounting Standard for Revenue Recognition from FY2021

Basic Policies

1. Continuous strengthening of our base in existing businesses

Expand our business base by generating stable cash from existing businesses and actively investing in growth areas

2. Strengthening of new product creation capabilities

Strengthen company-wide efforts to further promote market-in-type development

3. Promotion of sustainability management

Continuously enhance our corporate value by promoting sustainability measures and expanding disclosure to stakeholders

Basic chemicals

Resilience

- Strengthening facility management and invest in renewal and maintenance
- Maintain and expand sales share through our full-scale production capabilities

Business environment

Basic chemicals

- Measures to address changes in the domestic electricity situation (energy and power saving)
- Reducing GHG emissions

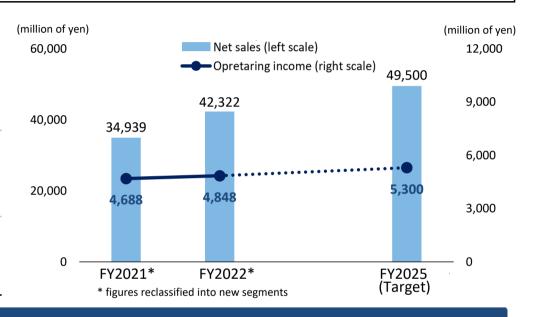
Chlor-Alkali

- Domestic production of steel, pulp, paper, and petroleum refineries decreases year by year
- Market conditions will gradually increase toward 2025

Epichlorohydrin



 Increase toward 2025, although the demand for epoxy resins is linked to economic fluctuations



Important measures

- > Promotion of locally based sales activities
 - ✓ Optimization of production through balance management at 4 electrolysis plants
- Sales strategy that flexibly responds to fluctuations in fuel and raw material prices
- Build efficient supply chain
 - ✓ Energy saving through process improvements
 - ✓ Promotion of DX production
 - ✓ Reduce costs by improving logistics efficiency and strengthening the system

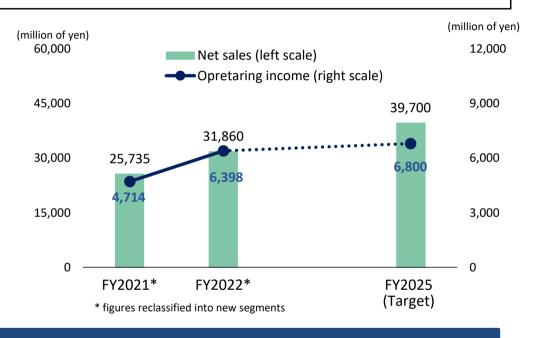
- Strengthen of facility management
 - ✓ Optimization of production lines when updating important facility
 - ✓ Iinstallation of high efficiency equipment
- Production efficiency
 - ✓ Improvement of electricity consumption
 - ✓ Development of production technologies to improve AC/EP yield

Functional chemicals

Resilience Business expansion

- Cultivation of markets for global niche-top products, development of new applications
- Expansion of business scale by sales of Acrylic Rubber and Non-phthalate Allyl Resin

Allyl Ethers Market of epoxy silane coupling agent expands at an annual rate of 3-4% Synthetic Rubber Global automobile production recovered to 97 million by 2025 Synthetic Resin Replacement of oil-based with UV is progressing in offset ink market Limited impact of digitization and paperless operations



Important measures

- Expansion of Allyl Ethers's capacity
- **Expand sales of Synthetic Rubber**
 - ✓ Development of new applications and expansion of new grades
 - ✓ Strengthen technical support system and expand market shares in Acrylic Rubber
- > Improve profitability of compound business in the North American

- Expand sales of Synthetic Resin
 - ✓ Capture the demand of food packages painting for the
 U.S. and Europe through Non-phthalate Allyl Resin



Healthcare

Business expansion

- Strengthening profitability in Pharmaceutical Purification Materials / APIs and their intermediates by capturing the growing demand in recent years
- Increase production capacity in preparation for future strong demand

Business environment

Pharmaceutical Purification Material

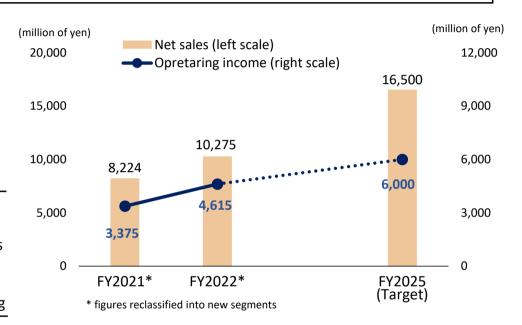
- Diabetes medications (including GLP-1 receptor agonists) grows at an annual rate of 10%
- Obesity medications continue to high growth potential
- Expect to biosimilars enter the market
- Growth of purification separation materials market for medium-molecular drugs

APIs and intermediates

 Global pharmaceutical market expands at an annual rate of 3-6%



- Accelerating the return of procurement to Japan in APIs and intermediates due to quality issues and stricter environmental regulations
- Development of medium-molecular drugs is progressing



Important measures

[Pharmaceutical Purification Materials]

- Capture growing Slica gel demand
 - ✓ Become the global de facto standard by strengthen global operations and branding
- Expand production capacity to meet future demand increases
- > Development and commercialization of Polymer gel

[APIs and their intermediates]

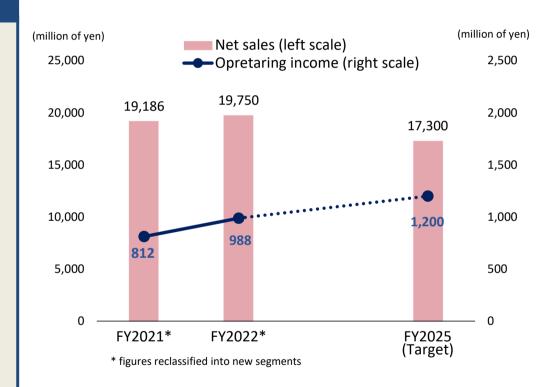
- Fully operate of new facility "PI-3"
- Implementation of next facility enhancements
- Strengthening the high-potency pharmaceutical business
 - Advance into the biopharmaceutical business

Trading and Others

- Strengthening information gathering capabilities
- Expanding business areas and strengthening profitability in domestic and overseas

Important measures

- Strengthening profitability and information gathering capabilities in overseas subsidiaries
- Promotion of mass production of semi-solid batteries
 - build a business of semi-solid batteries assembly using special polyether
- > Expand the consumer products business
 - ✓ Strengthening Housing Facilities planning and development of capabilities by using Chinese base
- > Sales of newly developed Photosensitive resin products
 - Expand sales of related products and strengthen business including technical services
- Improve profitability in basic chemical products



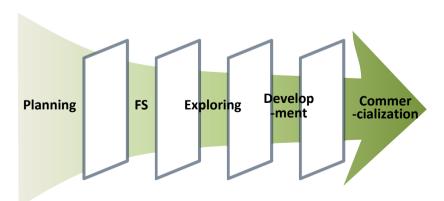
Basic Policy 2: Strengthening of new product creation capabilities

- Further promote market-in-type development and develop products that will become pillars of the next generation of earnings
- Aiming to accelerate development and build a development system to continuously launch new products

Improving Development Management Capabilities

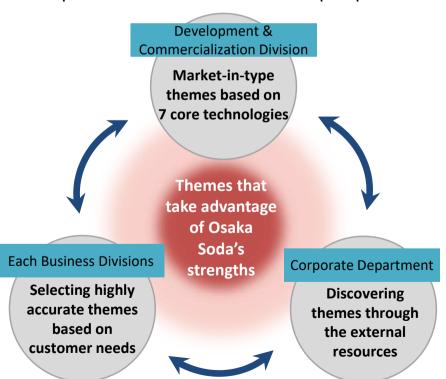
- > Organizational structure, Human resource management
 - Strategic resource allocation using skill maps
 - Training plans suitable for each job class
- > Strengthening thematic progress management
 - Development theme progress management through Design Review (DR)
- > Putting development infrastructure in place
 - Spreading knowledge management through the introduction of development support systems

[Theme progress management using DR]



Strengthening Company-wide efforts for Market-In-Type Development

Each business division, Corporate department and Development & Commercialization Division explore development themes from their own perspectives



Basic Policy 2: Strengthening of new product creation capabilities

- Selected development themes that enable us to show our creative technologies capabilities in 4 key areas
- Promote the commercialization of development themes created in the previous mid-term management plan and cultivate new development themes

Environment and **Energy**

Materials for storage batteries



Main themes

- Polymer electrolytes for LIB (special polyether)
- High ion conductive materials for all solid-state batteries
- SiO-based anode binders, etc.

Mobility

New normal materials for automotive

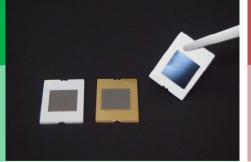


Main themes

- New grades of acrylic rubber
- Sensor and actuator materials
- Polymer alloy materials , etc.

Information and Communication

Semiconductor peripheral materials



Main themes

- <u>Silver nanoparticles for die bond materials</u>
 (for SiC and GaN-based power semiconductors)
- Carbon nanotubes, etc

Health and Healthcare

Biopharmaceutical materials
Long and healthy life



Main themes

- New columns (size exclusion, alkali resistance)
- Anti-aging materials
- New purification materials for biopharmaceuticals
- Protein drugs (CDMO), etc.

Basic Policy 3: Promotion of sustainability management

 Continuous improvement of corporate value by promote various measures and enhance disclosing to stakeholders

Stable supply of products that support the industrial infrastructure

Stable supply of products that contribute to the realization of a secure and affluent society

Disclosure

Planning and implementation of environmental impact reduction

- Reducing greenhouse gas emissions and waste landfill rate
- Reduction of resource consumption by improving production efficiency

Development of new products using our creative technologies

Provide new value that contributes to the realization of a sustainable society

Utilization of human resources

- Promotion of health management
- Promotion of women's active engagement and activation of senior human resources
- > Strengthening of human resources

Main Activities	KPI	FY2022 Performance	Target
Promotion of women's active engagement	Increasing the ratio of female manager, including section chiefs by 1.5x by FY 2025	6.3%	8.7% or more
Reducing of greenhouse gas emissions	Reduce CO2 emissions by FY2030 (SUM of Scope1+Scope2, vs FY2013)	11%	30%
Reducing of industrial waste landfill rate	Final industrial wastes landfill rate of FY2030	6.3%	Less than 1%

Toward eliminate production problems

■ Following the occurrence of main equipment malfunctions in AC production facility at the Mizushima Plant, we will implement (1) Improving facility management level (2) Strengthening of supply stabilization, from a business continuity plan perspective

Facility Management

Updated facility management system in FY2021

Improve Diagnostic Technology

- Enhance non-destructive testing
- Review deterioration diagnosis items
- Acquire and improve diagnostic techniques

Update Facilities/Equipment

- Optimize production lines for large-sized critical equipment
- Implement improved maintenance (Increase efficiency and life span)

Enhance Cycle Management

- Reset and standardize maintenance cycles
- Reset and standardize device update cycles

Spare Equipment and Parts Management

- Standardize retention indicators
- Shared use of spare parts

(1) Improving facility management level

Strengthen management by select the most important equipment that has a significant impact on production

- Expand spare parts for the most important equipment
- Shorten and clarify update cycles

(2) Strengthening of supply stabilization

<u>Implement company-wide measures such as tightening</u> operational management and improving skills

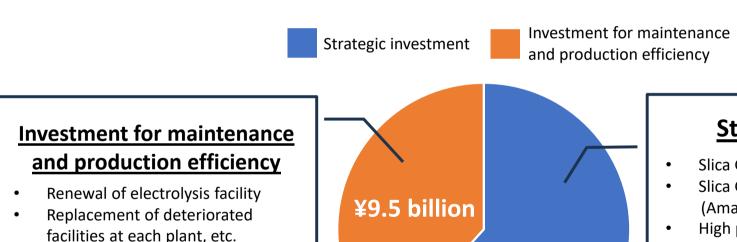
- Clarify proper operating ranges based on analysis through flow simulations
- Strengthening early recovery system (Double tracking, installation of spare equipment, etc.)

Investment for enhancing facility management: ¥1.5 billion (3 years)

Investment plan

- In addition to a total investment plan of ¥25 billion, ¥20 billion is set as an investment and financing facility for M&A, alliances, etc.
- Plans for strategic investments in Healthcare business and other manufacturing capacity expansion, R&D, and information infrastructures
- In Investment for maintenance and production efficiency, strengthen facility management such as preventative maintenance in addition to regular maintenance

¥15.5 billion



Strategic investment

- Slica Gel production facility (Matsuyama)
- Slica Gel production facility (Amagasaki 2 term reinforced)
- High potency APIs and their intermediates mass-production facility
- Allyl Ethers production facility (Reinforcement)
- Core system
- Battery Research facility, etc.



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