


**FYE March 2023  
Second Quarter  
Financial Briefing**

**NAGASE&CO.,LTD.**  
November 25, 2022



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©イリヤ・クブシノブ Ilya Kuvshinov

President Asakura will now begin the presentation.

**Asakura:** Good morning. This is Asakura, President of NAGASE.

I would like to thank you all for joining us for this web-based meeting.

First, I will give an overview of the H1 results and the outlook for the full year, followed by a brief explanation of the medium-term management plan. After that, Ikemoto, who is in charge of Prinova Group, will report on the current status of the company.

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FYE March 2023 Second Quarter Results and FYE March 2023 Earnings Projection

# Consolidated statements income

- ▶ Gross profit
  - Overall profit increased, despite lower gross profit margin due to lower profitability at certain manufacturing subsidiaries, etc.
- ▶ Operating income
  - Selling, general and administrative expenses increased due to higher logistics costs and increased activities; however, the increase in gross profit exceeded this increase in expenses, resulting in higher operating income
- ▶ Profit attributable to owners of the parent
  - Recorded record-high operating income for a first half and a Q2 profit that is a record high for any quarter

	21/09	22/09	Change	Vs.PY	Forecast (Full year)	Achievement
<b>Sales</b>	3,737	4,555	+ 817	122%	—	—
<b>Gross profit</b>	687	793	+ 106	115%	1,590	50%
<GP ratio>	18.4%	17.4%	(1.0pt)	—	—	—
<b>SG&amp;A expenses</b>	492	594	+ 102	121%	1,210	—
<b>Operating income</b>	194	198	+ 3	102%	380	52%
<b>Ordinary income</b>	204	202	(1)	99%	390	52%
<b>Profit Attributable to owners of the parent</b>	146	155	+ 9	107%	285	55%
US\$ Exchange rate (period average)	@ 109.8	@ 134.0	@ 24.2	Weak yen	@120.0	
RMB Exchange rate (period average)	@ 17.0	@ 19.9	@ 2.9	Weak yen	@18.5	

※ Offset to sales and cost of sales from revenue recognition standards: September 2021, -¥117.1 billion; September 2022, -¥133 billion  
 ※ Impact from foreign exchange: Gross profit, +¥6 billion; Operating income, +¥1.9 billion

This page describes the consolidated income statement for H1 of this fiscal year.

Gross profit was JPY79.3 billion, which was 115% of the previous year's figure. Operating income was JPY19.8 billion, 102% of the previous year's level. Profit was JPY15.5 billion, up 7% from the previous year. These profits are record highs.

Last year, all segments performed well throughout the year. However, this year, we have seen mixed trends in each segment and in the business units within each segment. Later today, I will explain this point again.

I have already mentioned the sharp rise in distribution costs and other selling expenses. In H1 of this fiscal year, these selling expenses surpassed our expectations and increased by JPY2.6 billion over the previous year.

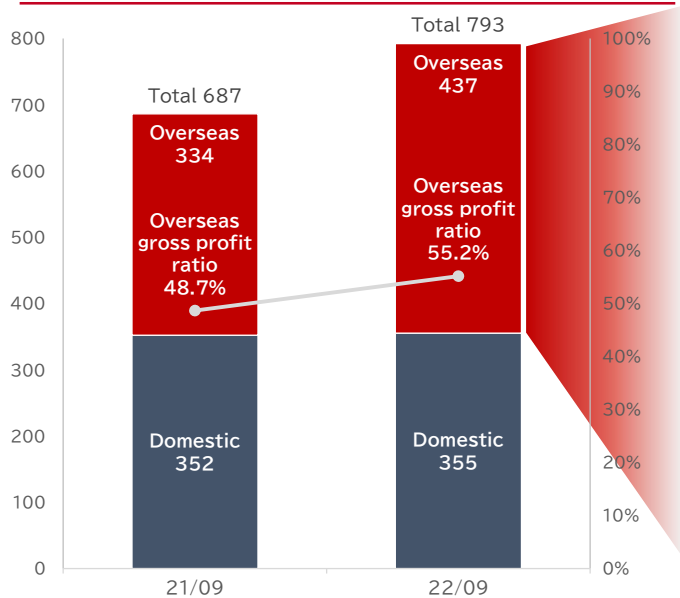
In addition, domestic and international activities are returning to normal. As a result, various expenses are higher than in the previous year.

On the other hand, we have recorded gains due to the yen's depreciation, which has made a significant contribution to our performance. We estimate that Operating income from the depreciation of the yen was about JPY1.9 billion.

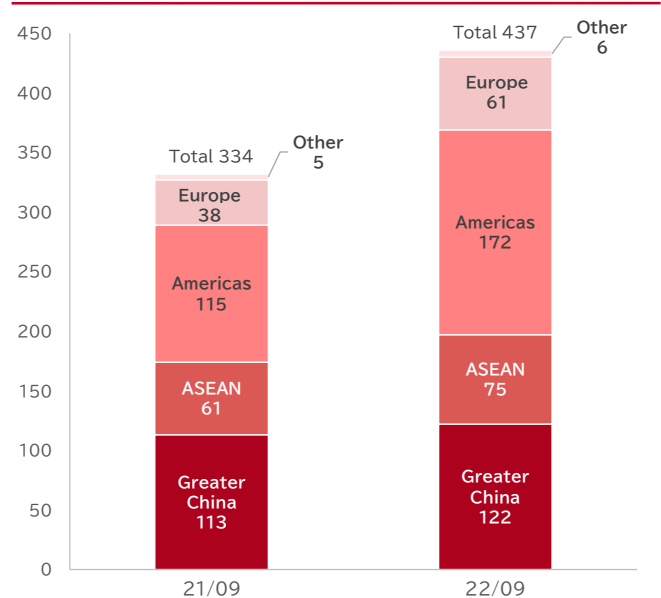
# Gross Profit By Region

- ▶ Higher profit both domestic and overseas
- ▶ Profit increased in Japan and overseas due to increased raw materials sales to the semiconductor industry
- ▶ Significant increase in profits in the Americas and Europe due to strong Prinova Group performance
- ▶ Despite the impact of lockdowns in Greater China, profits rose due to the effect of the weaker yen

Domestic & Overseas Gross profit(100 millions of yen)



Overseas gross profit By Region(100 millions of yen)



※Domestic figures under Domestic & Overseas Gross Profit include inter-regional adjustments

This page shows gross profit by region.

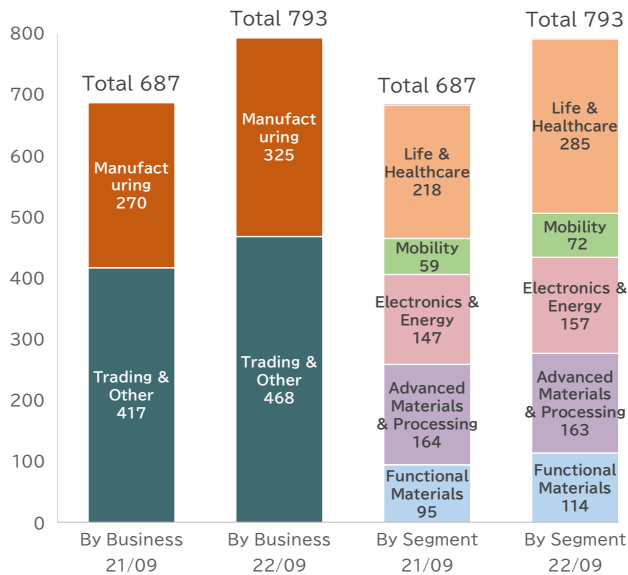
By geographic region, both domestic and international profit increased.

Both the Americas and Europe posted large increases in gross profit, due in part to the strong performance of Prinova Group. In China, while the lockdown has delayed some shipments, strong sales of semiconductor-related products and the depreciation of the yen have allowed us to somehow exceed the previous year's level.

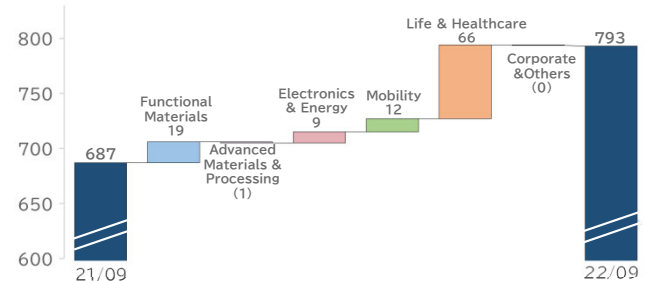
# Gross Profit By Business & Segment

- ▶ Functional Materials: Sales increased for semiconductor-related products and other areas of the electronics industry
- ▶ Profit decreased in part due to lower profitability in Advanced Materials & Processing, despite the positive impact of the weak yen, as sales volume of resins declined and the segment experienced a reactionary decline stemming from increased profit ratios in connection with soaring market conditions in the year-ago period
- ▶ Electronics & Energy: Sales increased for materials used in semiconductor applications
- ▶ Life & Healthcare: Sales were strong for food ingredients and manufacturing and processing in the Prinova Group

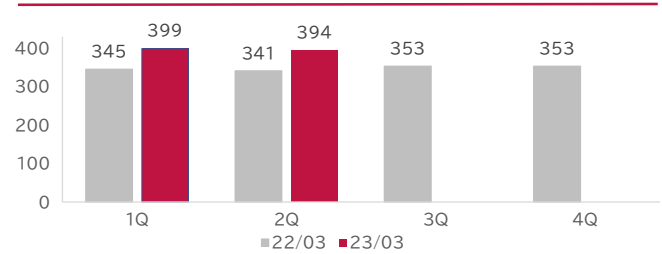
Gross Profit By Business & Segment (100 millions of yen)



Change in Gross Profit By Segment (100 millions of yen)



History of Gross Profit(100 millions of yen)

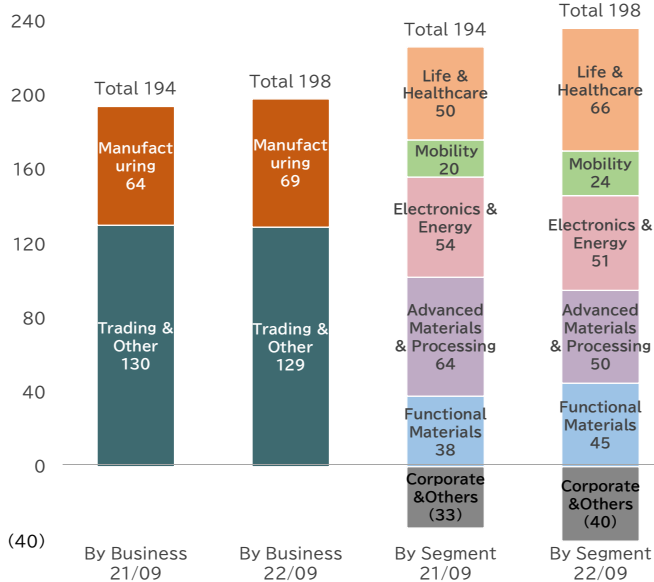


I would like to skip this page about gross profit by business and segment and move on to an explanation of operating income starting from the next page onward.

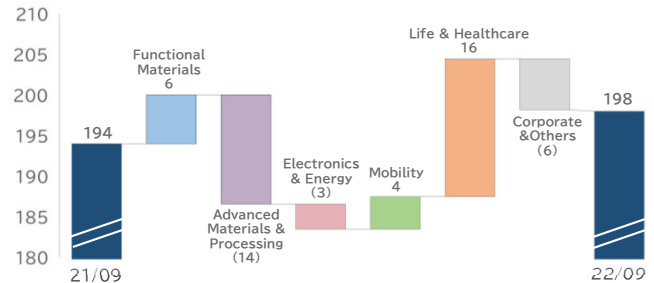
# Operating Income by Business & Segment

- ▶ Selling, general and administrative expenses increased due to higher logistics costs and increased activities; however, the increase in gross profit exceeded this increase in expenses
- ▶ Advanced Materials & Processing recorded lower profit, partly due to a reactionary decline from the stemming from increased profit ratios in connection with soaring market conditions in the year-ago period, as well as higher selling, general and administrative expenses
- ▶ Life & Healthcare business recorded a significant increase in profit due to strong sales of food ingredients by the Prinova Group
- ▶ We continue to invest for sustainable future growth, including in DX-related areas

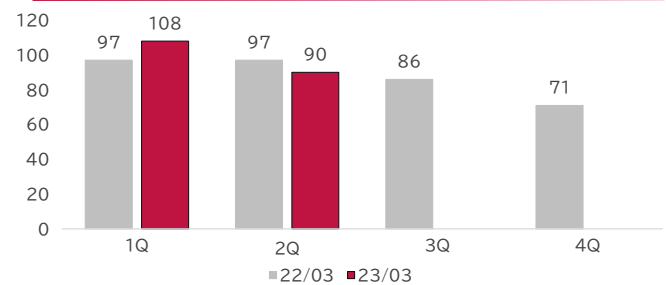
Operating Income by Business & Segment(100 millions of yen)



Change in Operating Income By Segment (100 millions of yen)



History of Operating Income(100 millions of yen)



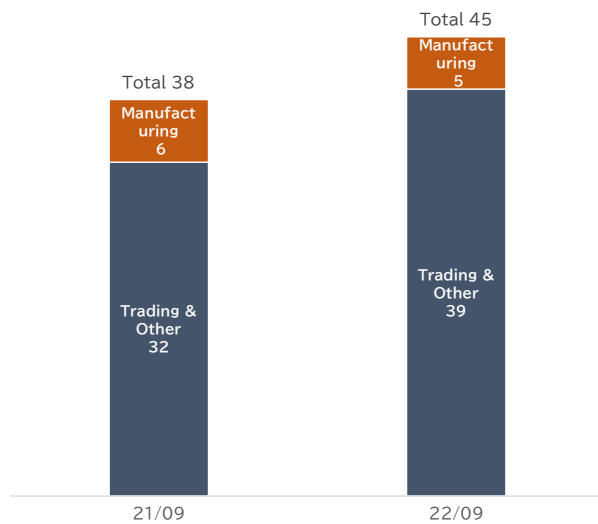
This page shows a YoY comparison of operating income.

As you can see, the situation differs from one segment to another. I will explain the status of each segment in more detail on the following pages.

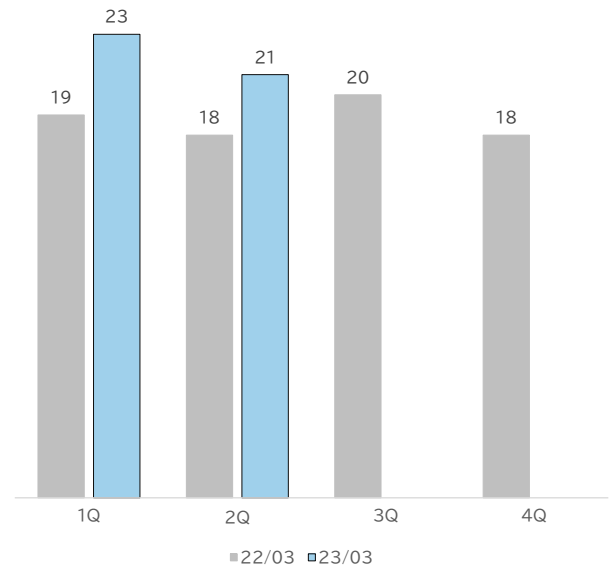
## Functional Materials Segment Operating Income Overview

- ▶ Overall increase in profit due to soaring market prices and the weakening of the yen
- ▶ Increased sales of coating and urethane raw materials to the automobile and other industries
- ▶ Increased sales of raw materials for the semiconductor-related products and other areas in the electronics industry, as well as sales related to industrial oil solutions and epoxy resins

Operating income by business(100 millions of yen)



History of operating income (100 millions of yen)



First, I will explain the status of the Functional Materials segment.

As a result of several price hikes, unit prices of items handled have remained at a high level, and the weak yen has also had a positive impact, resulting in a significant increase in operating income over the previous year.

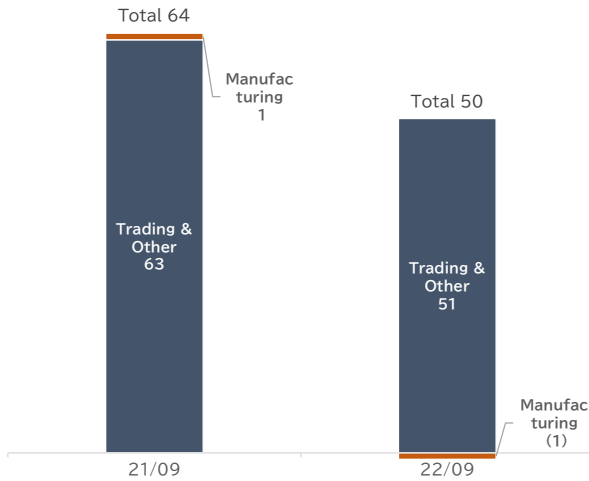
We were concerned about the impact of the lockdown in China and automobile production volume, but the volume remained almost flat. This segment handles many upstream materials, that is, the source of various materials used in electronic components, including semiconductors. These materials are performing well, including in terms of volume.



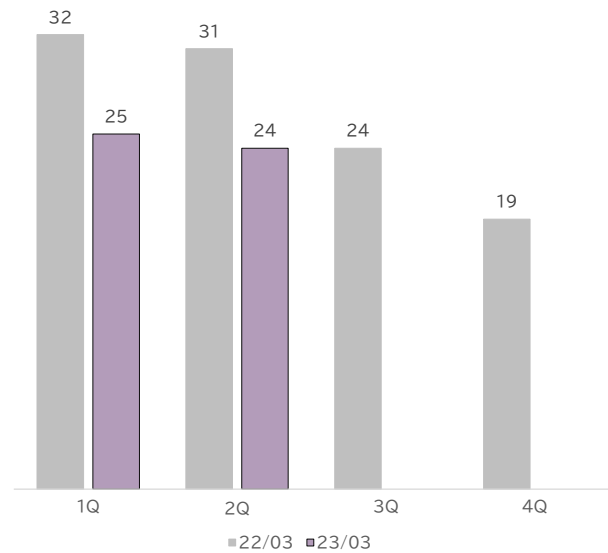
# Advanced Material & Processing Segment Operating Income Overview

- ▶ Despite the impact of the weak yen on resin sales to the office equipment, appliance, and video game device market, profitability decreased due to a reactionary decline stemming from increased profit ratios in connection with soaring market conditions in the year-ago period
- ▶ Digital print processing materials sales were weak due to sluggish demand
- ▶ Profit decreased year on year due to lower profitability and an increase in selling, general and administrative expenses, etc.

Operating income by business(100 millions of yen)



History of operating income (100 millions of yen)



Next, I will explain the status of the Advanced Material & Processing segment.

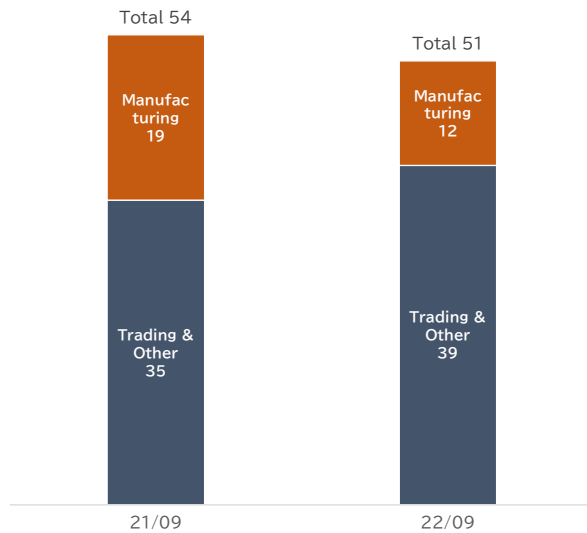
Resin raw materials are the main products in this segment. Profitability of resin raw materials has declined significantly in the current fiscal year, as a reaction to the high market prices in the previous year, due to stagnant markets for office automation and games, as well as the negative impact of the lockdown in China.

In addition, the company's own color former product line has continued to experience sluggish demand and increased competition, and the color former business remains weak. These factors have been a cause of concern for the segment as a whole.

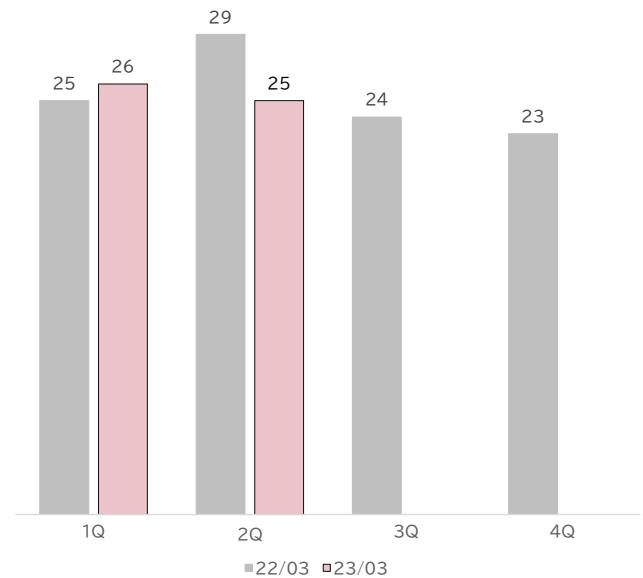
## Electronics & Energy Segment Operating Income Overview

- ▶ Sales increased in Japan, China, Taiwan, and Korea for materials used in semiconductors applications
- ▶ Sales of formulated epoxy resins was strong for semiconductor applications, but slow for mobile devices
- ▶ Profit decreased year on year due to weak performance in our manufacturing divisions

Operating income by business(100 millions of yen)



History of operating income (100 millions of yen)



Next, I will explain the status of the Electronics & Energy segment.

In the period under review, sales of materials related to semiconductors have remained strong both in Japan and overseas.

On the other hand, sales of epoxy-related materials, which are our products used in electronic components, especially for smartphones, remained very sluggish. Sales of LCD-related materials were also significantly lower than the previous year.

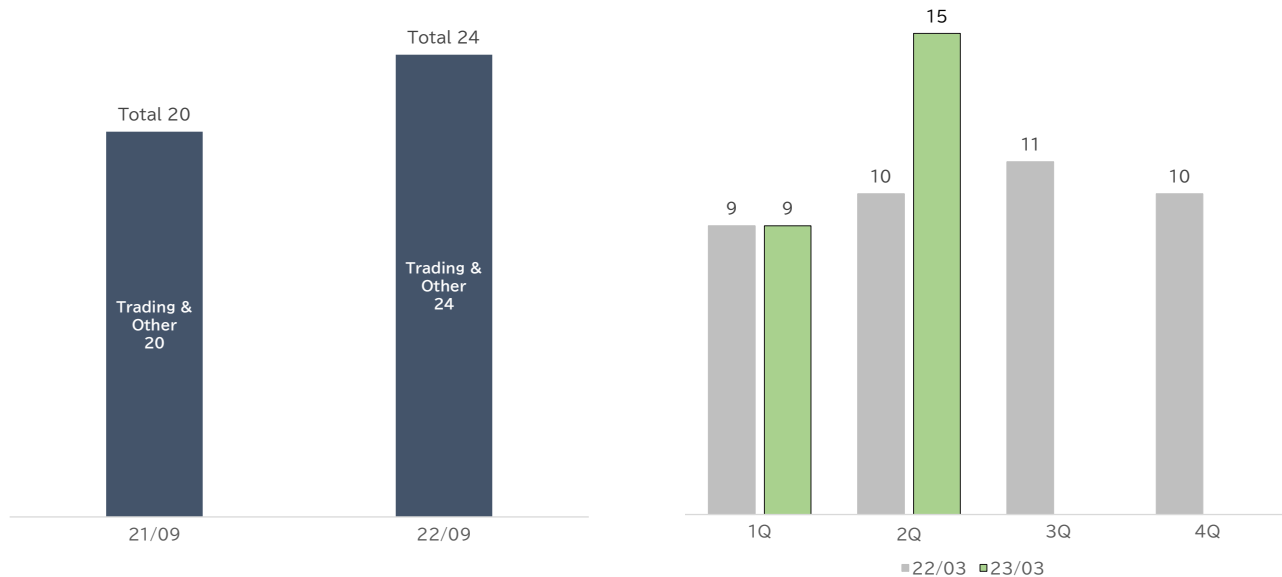
As a result, operating income was slightly lower than the previous year. Both the smartphone and LCD markets remain sluggish at the moment, but we expect them to start recovering in the spring of next year.

## Mobility Segment Operating Income Overview

- ▶ Resin sales were strong in Japan and overseas, despite semiconductor shortages and the lockdowns in Shanghai
- ▶ Sales increased in functional materials and functional components for EV interior and exterior fittings and electrification
- ▶ Profit increased year on year due to strong sales as described above

Operating income by business(100 millions of yen)

History of operating income (100 millions of yen)



Next, I will explain the status of the Mobility segment.

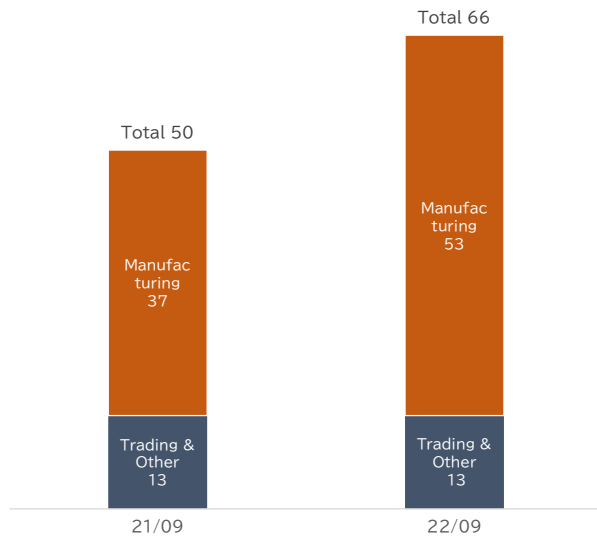
Despite negative factors such as the shortage of semiconductors and lockdowns in China, the mobility segment performed well, thanks to an upward trend in automobile production itself and the positive impact of the yen's depreciation.

At present, our main sales are resin-related products. However, we are very pleased to see that the sales of materials and parts for EVs, on which we have been focusing our efforts for the past few years, have already increased to a large number. We intend to continue to focus on these materials and components.

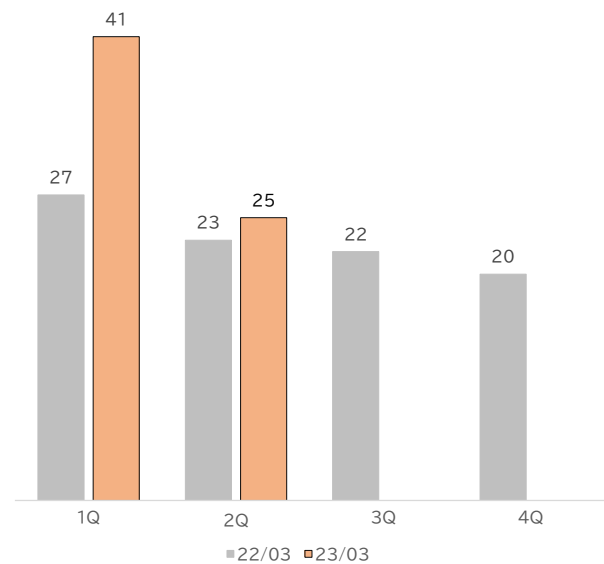
## Life & Healthcare Segment Operating Income Overview

- ▶ Prinova Group sales of food ingredients were particularly strong in the first quarter due to increased demand and sales of high-margin products in response to supply chain disruptions; performance remained strong overall through the second quarter, despite certain supply-demand adjustments performance remained
- ▶ Hayashibara sales of food ingredients (mainly TREHA™) and pharmaceutical raw materials increased; however, sales of cosmetics materials (mainly AA2G™) decreased due to lower demand
- ▶ In addition, Pharmaceutical product-related business performance was also strong, contributing to higher profit year on year

Operating income by business(100 millions of yen)



History of operating income (100 millions of yen)



Next, I will explain the status of the Life & Healthcare segment.

This segment is the core of our bio & food related business, which we have identified as a focus area in our medium-term management plan. Although performance has been mixed, this segment has generally been performing well.

Prinova Group, which I will explain in more detail later, is steadily increasing its market share and performed well in H1.

Hayashibara also saw an increase in sales of functional carbohydrates, such as TREHA™, to the food industry. In addition, sales of imported raw materials for pharmaceuticals and other products were strong during this period, resulting in a significant increase in operating income for the segment as a whole.

# State of Major Manufacturing Subsidiaries

- ▶ Nagase ChemteX: Lower profit, despite strong semiconductor-related sales, due to weak sales of formulated epoxy resins for use in mobile devices
- ▶ Hayashibara: Lower profit due to lower sales of cosmetic material AA2G™ and lower profitability of food material TREHA™, stemming from higher raw materials and energy prices
- ▶ Prinova Group: Higher profit due to higher sales of nutrition-related materials stemming from increased demand, as well as improved profitability

		100 millions of yen			
		21/09	22/09	Change	Vs.PY
Nagase ChemteX Corporation	Sales	146	135	(10)	93%
	Gross profit	47	38	(9)	80%
	Operating income	23	11	(12)	49%
Hayashibara Co.,Ltd.	Sales	130	138	8	107%
	Gross profit	54	53	(0)	98%
	Operating income	23	20	(2)	87%
	Goodwill amortization etc.	15	15	-	100%
	Operating income after amortization burden	7	4	(2)	62%
Prinova Group	Sales	557	950	392	170%
	Gross profit	106	166	60	157%
	Operating income	37	57	20	153%
	Goodwill amortization etc.	9	11	1	114%
	Operating income after amortization burden	27	46	18	167%

This page shows the status of our major manufacturing subsidiaries.

As for NAGASE ChemteX, operating income was 49% of the previous year's level due to a significant slump in epoxy resins for electronic components used in smartphones as I mentioned earlier. However, other product groups are generally performing well and we are waiting for the smartphone market to recover.

Hayashibara has raised prices several times, but due to the high cost of starch and other raw materials and rising energy costs, this has not been enough to absorb the increased costs, resulting in a decline in operating income compared to the previous year.

Prinova Group achieved solid results in H1, but we have to keep a close eye on cost increases due to selling expenses and labor costs.

In addition, the company had increased its total inventory of vitamins and other products in order to secure supply volume due to logistical disruptions, but is now reducing inventory as product delivery times have stabilized.

# Consolidated Balance Sheets

- ▶ Current assets: Increase in working capital due to overall strong performance
- ▶ Net assets: Increase, despite dividend payments and share buyback, due to profit for the period and an increase in foreign currency translation adjustments due to the weaker yen
- ▶ NET D/E ratio: Increased to 0.41 times due to an increase in interest-bearing debt resulting from higher demand for cash in connection with an increase in working capital

100 millions of yen

	22/03	22/09	Change	Details
Total Current Assets	5,142	5,677	534	
(Cash&deposits)	542	461	(80)	
(Trade account receivable)	2,898	3,164	266	
(Inventories)	1,575	1,864	289	
Total non-current assets	2,254	2,341	87	
(Investments in security)	756	724	(31)	
Total assets	7,397	8,019	622	
Current Liab.	3,078	3,285	207	Short-term loans/CP+310, Current Portion of Bonds(100)
(Trade account payable)	1,490	1,523	33	
Non-current Liab.	767	897	129	Corporate Bonds+100
Total Liab.	3,846	4,182	336	
Shareholders' equity	2,988	3,073	85	
Accum. Other Comprehensive Income	454	652	197	Translation adjustment+218, Appraisal Loss on Investment Securities(25)
Non-controlling interest	108	111	2	
Total net assets	3,550	3,836	285	
Working capital	2,983	3,505	522	
Shareholders' equity ratio	46.5%	46.5%	(0.0%)	
NET D/E ratio	0.33	0.41	0.09	

This is an overview of our balance sheet.

Inventory has increased compared to the end of March, resulting in an increase in working capital.

We have strategically increased inventories to maintain our supply chain, not only in Prinova Group, but also in other areas. We are monitoring inventory levels closely in each region and in each organization, and we are seeing a steady downward trend.

# Consolidated Cash Flows

- ▶ Operating CF : Net cash used of ¥17.9 billion as working capital increased due to strong business performance
- ▶ Investing CF : Net cash used of ¥5.9 billion due to purchases of property, plant and equipment, etc., offset in part by proceeds from sales of investments in securities
- ▶ Financing CF : Net cash provided of ¥11.5 billion, mainly due to an increase in interest-bearing debt in connection with an increase in working capital, offset in part by payments of dividends and purchases of treasury stock

	100 millions of yen	
	21/09	22/09
Operating CF	(136)	(179)
Investing CF	(49)	(59)
Free CF	(185)	(239)
Financing CF	144	115
Effects of exchange rate changes on cash and cash equivalents	3	47
Net change in cash and cash equivalents	(38)	(76)
Depreciation and amortization of tangible and intangible assets	68	71
Fixed asset investment	(75)	(83)
Change in working capital	(327)	(295)

This is an overview of our operating, investing, and financing cash flow. There are no special items to be mentioned here.

# FYE March 2023 Earnings Projection

- ▶ Although the yen weakened compared to our initial forecast, we maintain our full-year earnings forecast unchanged, reflecting following circumstances (we expect to record record-high earnings for a second consecutive year)
- ▶ We expect to see continued growth, with semiconductor-related products and automobile-related businesses performing solidly, even as we forecast food-related product to slow down compared to the first half due to economic sluggishness
- ▶ In addition to crude oil prices and related chemical market conditions, we expect utility costs such as electricity and gas to remain high
- ▶ The sales decrease for formulated epoxy resins-related products caused by lower demand for mobile devices is not expected to recover in full-year results

	100 millions of yen			
	22/03 Actual	23/03 Forecast	Change	Vs.PY
<b>Gross profit</b>	1,394	1,590	195	114%
<b>SG&amp;A expenses</b>	1,042	1,210	167	116%
<b>Operating income</b>	352	380	27	108%
<b>Ordinary income</b>	364	390	25	107%
<b>Profit attributable to owners of the parent</b>	259	285	25	110%
US\$ Exchange rate (period average)	@ 112.4	@ 140.0	(@120.0 ⇒ @140.0)	
RMB Exchange rate (period average)	@ 17.5	@ 20.0	(@18.5 ⇒ @20.0)	

※Impact on operating income of 1 yen change in exchange rate: US\$ approx. 100 million yen, RMB approx. 400 million yen

I would now like to explain our outlook for the full-year financial results.

In the individual business segments, we are seeing a variety of favorable and unfavorable conditions. However, we have not changed our initial forecasts for an operating income of JPY38 billion and profit of JPY28.5 billion for the full year.

Regarding foreign exchange rates, we have revised our forecast to JPY140 to the US dollar for the full year.



## FYE March 2023 Earnings Projection By segment

- ▶ We revised our forecast for Functional Materials upward, mainly due to strong sales of electronics chemicals for semiconductor-related industries and improved profitability resulting from market conditions and foreign exchange rate fluctuations
- ▶ We revised our forecast downward for Advanced Materials & Processing, mainly due to weaker-than-expected performance in the resins business, which was affected by the Shanghai lockdowns, etc.
- ▶ We revised our forecast downward for Electronics & Energy, which should see firm performance for semiconductor-related products, but weak sales of formulated epoxy resins, mainly due to a decline in demand for mobile devices
- ▶ We revised our forecast upward for Mobility, mainly due to improved profitability in response to market conditions and foreign exchange rates, as well as an increase in market share of Functional Materials and components for EVs
- ▶ We revised our forecast for Life & Healthcare upward, mainly due to the Prinova Group nutrition-related business performing better than expected in the first half, including an increase in market share

100 millions of yen

		22/03 Actual	23/03 Previous forecast	23/03 Revised forecast	Change	Percentage change
Functional Materials	Gross profit	198	221	229	8	3.6%
	Operating income	78	83	95	12	14.5%
Advanced Materials & Processing	Gross profit	323	343	330	(13)	(3.8%)
	Operating income	108	117	105	(12)	(10.3%)
Electronics & Energy	Gross profit	297	325	310	(15)	(4.6%)
	Operating income	102	115	103	(12)	(10.4%)
Mobility	Gross profit	127	142	149	7	4.9%
	Operating income	41	44	55	11	25.0%
Life & Healthcare	Gross profit	447	557	571	14	2.5%
	Operating income	94	112	117	5	4.5%
Corporate & Others	Gross profit	1	2	1	(1)	(50.0%)
	Operating income	(72)	(91)	(95)	(4)	—
Total	Gross profit	1,394	1,590	1,590	—	—
	Operating income	352	380	380	—	—

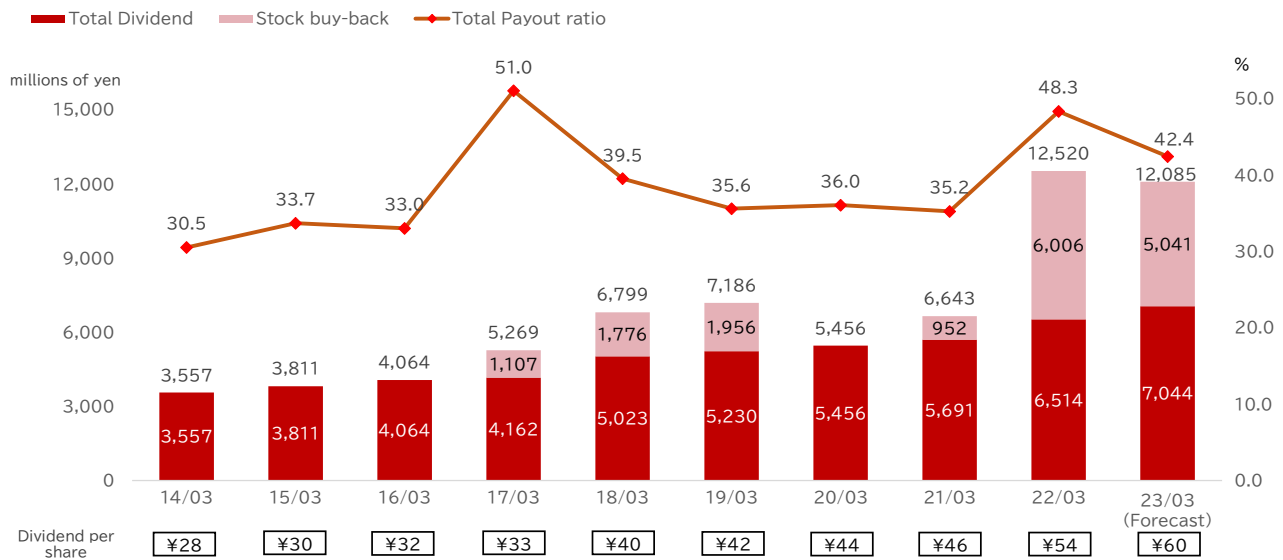
I would like to explain our full-year outlook by segment.

Although we have made slight revisions based on the H1 performance of each segment, we expect that the H1 trends will generally continue.

In the Advanced Materials & Processing and Electronics & Energy segments, we expect a YoY decline in gross profit and operating income.

# Shareholder Returns

- ▶ We plan to pay an interim dividend of ¥30 per share and a year-end dividend of ¥30 per share for an annual dividend of ¥60 per share for fiscal 2022 (expected 13th consecutive fiscal year of dividend increases)
- ▶ The repurchase of ¥6 billion in treasury stock, resolved in February 2022, is on schedule (We repurchased the cumulative total to ¥4.6 billion as of October 31, 2022)



※ 23/03 year-end dividend to be submitted for approval to the 108th general meeting of shareholders scheduled for June 2023.

Here we show our shareholder returns for the past 10 years.

As originally announced, we plan to pay an interim dividend of JPY30 per share and a year-end dividend of JPY30 per share, for an annual dividend of JPY60 per share for the current fiscal year. This will be the 13th consecutive year of dividend increases.

Medium-Term Management Plan **ACE 2.0**

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Next, I will report on the progress of our medium-term management plan, **ACE 2.0**.

## Initiatives Toward Solving Materialities

### Employee Engagement



-KPI-

Engagement survey implementation rate and scores

### Carbon Neutrality



-KPI-

Greenhouse gas emissions reductions (Scope 1,2 basis)

#### Initiatives to Achieve Targets

- ▶ Conducted FY2022 engagement survey
- ▶ Encouraged two-way dialogue through various combinations of participants  
Director x Manager, President x Employee, Female Director x Female Employee
- ▶ Adopted Activity-Based Workplace (ABW)  
With the relocation of the Tokyo head office, we engaged in work-style innovation to allow employees the choice of where to work in the office

- ▶ Conducted activities as an endorsing company of the GX League  
Participated in working group discussions related to low-carbon/carbon-free materials
- ▶ Participated in a METI-led storage battery CFP calculation trial project  
Participated in CFP calculations of the storage battery supply chain as a component supplier; acquired new expertise on CFP data linkage
- ▶ Participated in the Green × Digital Consortium\*  
Participated in private/corporate discussions on the CO<sub>2</sub> Visualization Framework; contributed to the establishment of rules
- ▶ Began proof-of-concept tests related to the creation of forest credits

\*Led by Japan Electronics and Information Technology Industries Association (JEITA)

Under the **ACE 2.0** plan, we have set two non-financial goals for the current fiscal year.

First, to improve employee engagement, we have set the survey implementation rate & the score as KPIs and are conducting surveys on a group-wide basis.

Second, to realize carbon neutrality, we have set Scope 1 and Scope 2 GHG reductions as KPIs and are working to achieve this in both our manufacturing and trading divisions.

We are also actively participating in government-sponsored GX leagues and other third-party organizations.

## Accelerating *Zeroboard* Expansion in Japan and Southeast Asia

### Partnered with Zeroboard Inc. to support decarbonization management in Thailand

Visualizing GHG emissions in Thailand to decarbonize supply chain partners and overseas manufacturing sites

Supporting the future of decarbonization management throughout Asia

### Formed business alliance with Vietnamese logistics startup LOGIVAN VIETNAM

#### TECHNOLOGY COMPANY

- Working in collaboration with Logivan, operator of an inter-corporate logistics platform, to foster logistics efficiencies and reduce GHG emissions in Vietnam through DX
- Pursuing optimal solutions for GHG emissions reduction through collaboration with zeroboard



## Selected as a Constituent of the FTSE Blossom Japan Index for the First Time

- Of the ESG indexes used by GPIF, NAGASE has already been selected as a constituent of the FTSE Blossom Japan Sector Relative Index, MSCI Japan Empowering Women (WIN) Select Index, and the S&P/JPX Carbon Efficient Index

- With this selection, we have been included in four of the five domestic stock ESG indices used by GPIF



FTSE Blossom Japan

On this page, we report on some of our activities related to sustainability.

We are actively promoting the development of a greenhouse gas emissions visualization service called zeroboard not only in Japan but also in Southeast Asia.

Our activities in this area have been recognized, and we have been selected as a constituent of the FTSE Blossom Japan Index and other indexes.

# Medium-Term Management Plan **ACE 2.0** Numerical Targets

Our Policy to Pursuit of Quality Remains Unchanged as We Review Our KGIs and KPIs

▶ Increase profitability

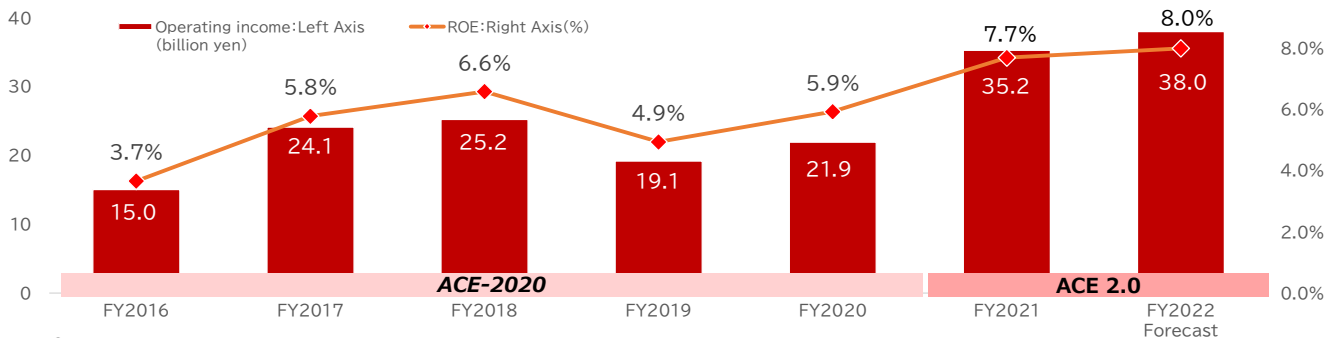
- We expect to record two consecutive years of record-high profits in FY2021 and FY2022
  - Despite certain external factors, businesses in focus areas (food, semiconductors, etc.) are growing faster than expected
- ▶ Improve capital efficiency
- We expect ROE to be close to the target level for the second consecutive fiscal year

(ACE 2.0 KGI)

Measures	Indicators	FY2021 Actual	FY2022 Forecast	FY2025 Plan
Increased profitability	Operating income	35.2 billion yen	38.0 billion yen	35.0 billion yen
Improvement in capital efficiency	ROE	7.7%	Approximately 8.0%	8.0% or Greater

At the same time, we are still in the process of portfolio replacement and creating businesses that solve social and environmental issues are still

(Operating income and ROE)



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Finally, this page shows our numerical targets under **ACE 2.0**, which we are currently reviewing.

First of all, we are reviewing whether we are making steady progress in transforming our portfolio and corporate culture in pursuit of quality.

In addition, we are carefully analyzing environmental factors and trends in our focus areas. We are also carefully estimating costs and other aspects of our activities and business structure that will contribute to sustainability, and we plan to finalize our report by the end of the fiscal year. We would appreciate your understanding on this point.

In this rapidly changing environment, there are of course some businesses, such as smartphone-related businesses, that are stagnant. However, overall, we believe that each segment is steadily responding to changes and increasing its market share.

This concludes my explanation. Next, Ikemoto will explain the current status of Prinova Group.

## Prinova Group: Business Overview and Growth Strategy

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**Ikemoto:** Good morning. This is Ikemoto, Director of NAGASE. I would like to take some time today to explain about Prinova Group, three years after its acquisition, in light of its position in our food business growth strategy.

Prinova Group's Position Within the <b>ACE 2.0</b> Medium-Term Management Plan	P25
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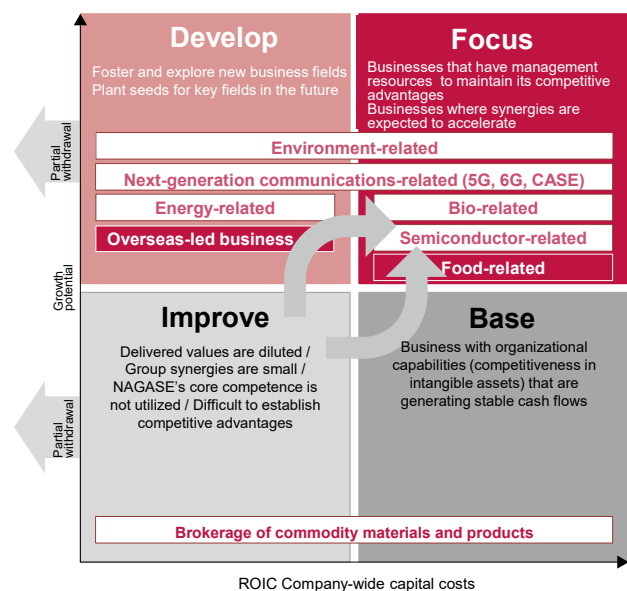


# Prinova Group's Position Within the ACE 2.0 Medium-Term Management Plan

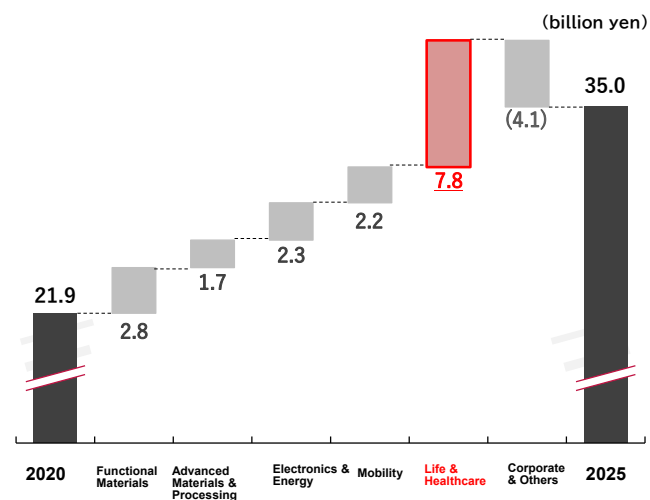
- The food-related business is one of the focus areas in ACE 2.0.
- Overseas-lead business also represent important measures for future growth.

- A company that will play a central role in the growth of our Life & Healthcare segment, including the food-related business:  
**Prinova Group**

## Approach to Business Portfolio



## Change in Operating Income by Segment



We have positioned the food related business as one of our focus areas in our medium-term plan, and Prinova Group is a key player in driving the growth of the food business. We have set ambitious goals for 2025, and we expect Prinova Group to continue to meet or exceed our expectations as it gains market share in the food industry, especially in health-related products.

## Food-Related Businesses Contribute to Solving Social Issues

### Nagase Group Materialities | Solving Social and Environmental Issues, Globalization

- Solve problems that threaten safety and security, e.g., climate change and **food** and water shortage.
- Contribute to securing and improving **food safety** by utilizing **biotech**, AI, and other advanced technologies.
- Fulfill **health maintenance** demands due to increasingly aging societies in advanced countries.
- Contribute to the acceleration of **globalization** and solve social issues in each region.



We recognize that our food-related business is in a crucial position to contribute to the resolution of social issues.

As the Group's materiality, we have identified the resolution of social and environmental issues and globalization. Through food-related businesses, we provide products and technologies to address food shortages. We also strive to ensure food safety through the use of biotechnology and AI. Furthermore, we aim to meet the health demands of an aging population. Through these efforts, we believe we can solve social issues.

Through the growth and development of core NAGASE Group companies such as Prinova Group, NAGASE ChemteX, and Hayashibara, we aim to contribute to solving social issues on a global scale, thereby achieving both economic and social value.

Today, I would like to explain Prinova Group's business situation and our activities through our sports nutrition initiatives.

Name	Prinova Group LLC
Head Office	Illinois, USA
Founded	1978
Scope	Sales : 120.9 billion yen Operating income : 6.9 billion yen 1US\$=109.9yen (Exchange rate : December 2021)
Employees	1,032 (as of December 2021)
Manufacturing Locations	U.S. (6), U.K. (1), China (1)
Sales Offices	U.S., U.K., and 9 other countries
Products	Food ingredients (vitamins, amino acids, etc.) Flavored ingredients, premixes and contract manufacturing (sports nutrition)
Business Lines	Sales of food ingredients and flavors, production and processing of premixed products, contract manufacturing



As I have already explained several times during briefing meetings in the past, I would like to once again give you a brief overview of Prinova Group.

Prinova Group is headquartered in the suburbs of Chicago, Illinois, US. Prinova Group is engaged in the sales of food ingredients, blends of food ingredients commonly known as premixes, and the contract processing of dietary supplements in the form of OEM and ODM. The company is a hybrid manufacturing and sales company with offices in the US, UK, Europe, and China.

Prinova Group currently employs over 1,000 people and operates worldwide.

Prinova Group has six manufacturing facilities in the US, one in the UK, and one in China. The company has sales offices in 11 countries, including Europe and the US. It is also expanding sales in Asia and especially China using NAGASE Group's bases.

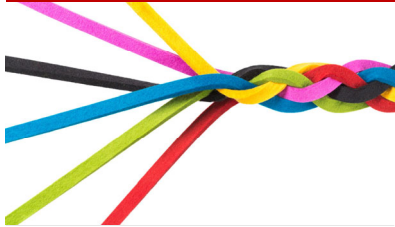
In the fiscal year ended December 31, 2021, Prinova Group posted operating income of JPY6.9 billion on sales of JPY120.9 billion.

Compared to the sales of about JPY80 billion prior to our acquisition in 2019, Prinova Group has achieved significant growth.

## Gain Customer Trust by Handling Everything from Procurement to Manufacturing and Processing on a Global Basis

### Business Model

Vertical integration of trading company, manufacturing, and processing functions



Wide range of functions from procurement to processing, product design/proposal, and manufacturing of end products One-stop solutions to customer issues

### Global Network

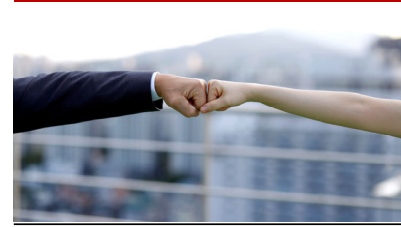
Locations in Europe, the U.S., and Asia



End-to-end global support system, from procurement to manufacturing, with manufacturing and processing sites in the U.S., U.K., and China

### Customer Base

Trusted relationships with blue-chip customers



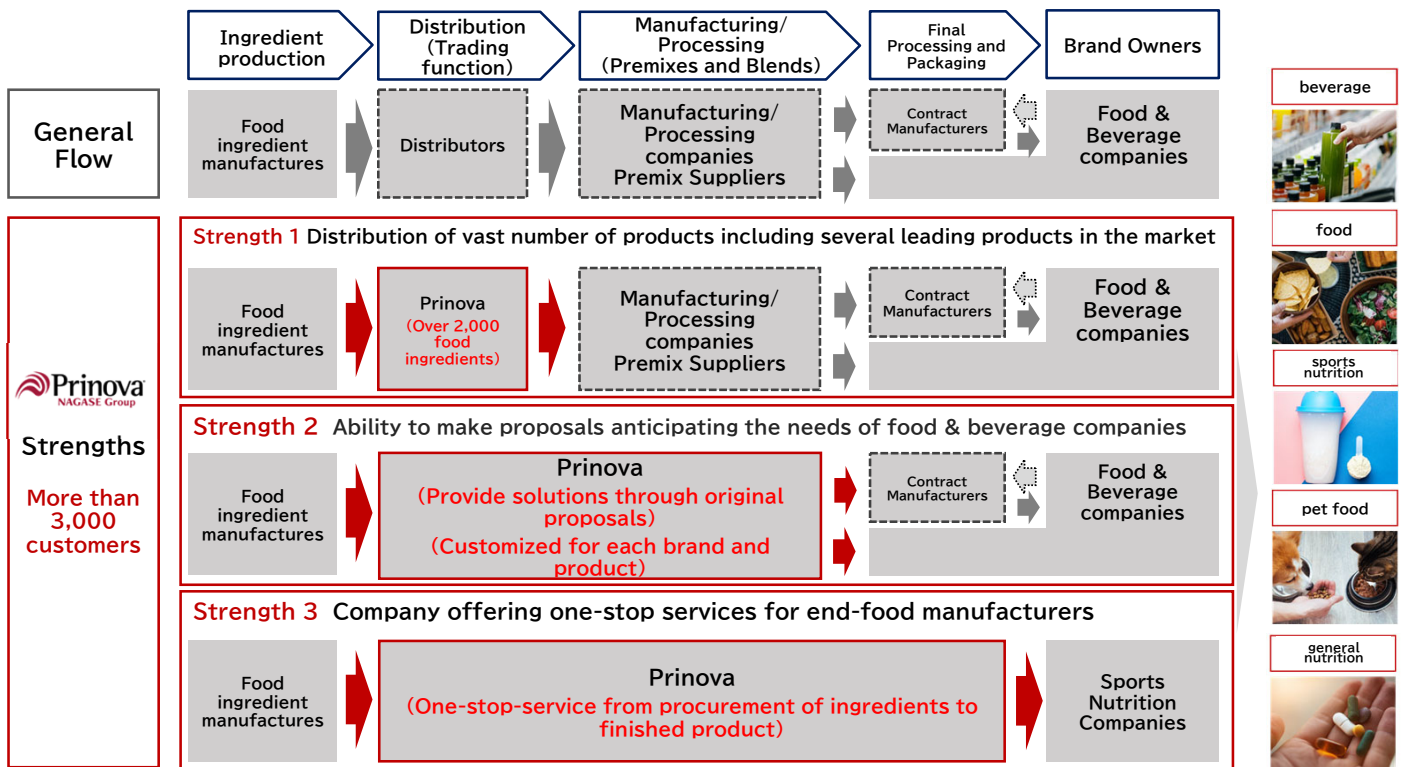
Doing business with customers with top class market share in a wide range of fields

Prinova Group's strength lies in its ability to vertically integrate formulation and commercialization technologies, from material sourcing to processing and finished products. This differentiates them from competitors throughout the US.

In addition to these advantages, Prinova Group 's manufacturing facilities in Europe, the US, and China enable them to provide the same quality products to customers. In this way, the company has formed a global warranty and supply system.

We are confident that Prinova Group's expected expansion in Asia and Japan as part of the NAGASE Group will further strengthen its position.

Demonstrate Competitiveness through Vertical Integration of Functions, From Procurement to Product Design/Proposals, and Manufacturing



Let me explain Prinova Group 's business model in a little more detail compared to the industry supply chain.

This slide shows the supply chain of the food ingredients industry. It is a horizontal image from material production to sales.

In general, the food ingredients supply chain is divided into different stages, with each stage having different players.

In the case of Prinova Group, the first of its strengths is its ability to procure and handle more than 2,000 food ingredients. We also have many items with the world's largest transaction volume. This procurement and sales capability is one of the company's strengths.

Second, the company possesses a wide variety of compounding technologies, enabling it to offer a wide range of compounded products to its customers.

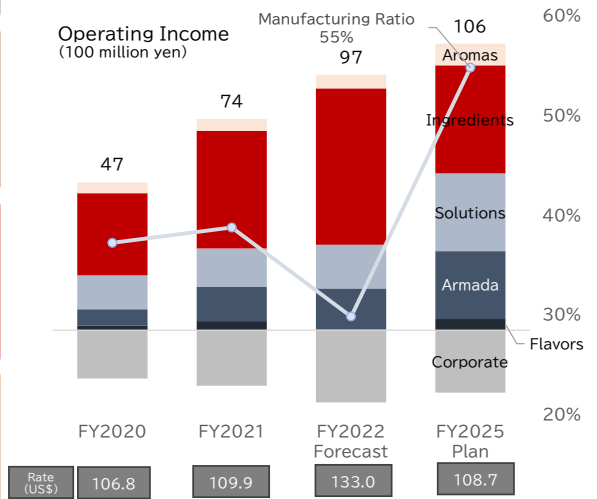
A third strength is the company's one-stop service, especially in the sports nutrition market. In general, there are many customers in this industry who do not have factories. Some customers, even if they are the main players, do not have factories or production functions. For these customers, Prinova Group offers a one-stop service, from material sourcing and formulation to the finishing of the final product. At times, the company responds to customer needs as an ODM manufacturer while imparting its own technology.

Similar companies differentiated by such strengths are rare in the Western market. We believe that Prinova Group is competitive in the beverage, food, sports nutrition, pet food, and general nutrition markets, which are shown on the right side of this page.

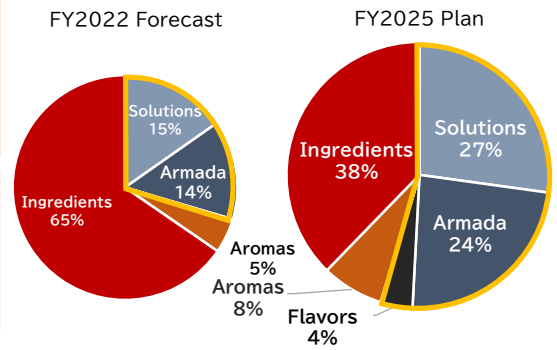


# Prinova Group Business Overview

	Value Proposition	Applications, Main Business Major Products
Trading	<b>Aromas</b> <p>Reliable supply of aromas and essential oils to the food and nutrition markets</p>	<b>[Major Products]</b> Aromas and essential oils
	<b>Ingredients</b> <p>Distribution of more than 2,000 food ingredients to the food and nutrition market, offering reliable supply, quality and price</p>	<b>[Major Products]</b> Vitamins, amino acids, acidulants, food extracts, sweeteners, umami seasoning, polysaccharides, nutrient enhancers, phosphates
Manufacturing-Processing	<b>Solutions</b> <p>Production of premixes, and micronizing, combining a wide range of ingredients to provide solutions that meet customer needs</p>	<b>[Main Business]</b> Customized powder premixes (amino acid, vitamins and minerals) and liquid premixes
	<b>Armada</b> <p>One-stop-solutions from product planning to manufacturing finished products</p>	<b>[Main Business]</b> Sports nutrition products in the finished form (powder and capsule) with quality assurance and regulatory compliance
	<b>Flavors</b> <p>Reliable flavors developed by certified flavorists (added-value for Prinova's manufacturing capabilities)</p>	<b>[Examples of Applications]</b> Confectionery (e.g., gummies, chocolates, candies), beverages (e.g., soft drinks), dairy products (e.g., ice cream, yogurt), baking (enriched flour)



\*The figures above are the results of the Prinova Group and do not include amortization of goodwill and other expenses incurred at the time of consolidation



The Prinova Group is composed of a trading division and a manufacturing and processing division.

As I mentioned earlier, the trading division handles more than 2,000 items and supplies materials to various sectors of the manufacturing and processing industry.

The manufacturing division, backed by the trading company function, provides products to various markets while receiving an abundance of materials.

In particular, we consider the Armada business to be the core of the manufacturing division. As shown in the pie chart on the right, the company is aiming to achieve an operating income level of more than 50% by 2025 by combining the Solutions, Armada, and Flavors businesses.

# What is the Sports Nutrition Market ?

The Market is Fragmented and the User Base is Broad in the U.S.

## Representative Products



Classification by product form

- Powder
- Capsules, tablets
- Drinks

Classification by ingredients

- Protein
- Non-protein, etc.

## Usage Scenarios

### Pre-workout

- To prepare the body for exercise before training (Typical ingredients: amino acids, etc.)

### Intra-workout

- To prevent energy deficiencies during training (Typical ingredients: carbohydrates, water, etc.)

### Post-workout

- Ingested after training to enhance the effects of training and recovery (Typical ingredients: protein, amino acids, carbohydrates, etc.)

## User Base



General consumers/sports enthusiasts, weekend athletes (athlete population: medium to large x frequency/volume: medium to large)



Professional bodybuilders/professional athletes, etc. (athlete population: small x frequency/volume: large)

In this context, I would like to explain a little about sports nutrition.

In Japan, the term sports nutrition is still unfamiliar to the Japanese market. Generally speaking, sports supplements or protein foods may be easier to understand.

In recent years, sales of protein products have been increasing in Japan. I am sure that you are aware of the remarkable growth in this area. The sports nutrition industry is divided into three main markets.

There is the pre-workout market, which provides the body with the proper nutrients prior to training.

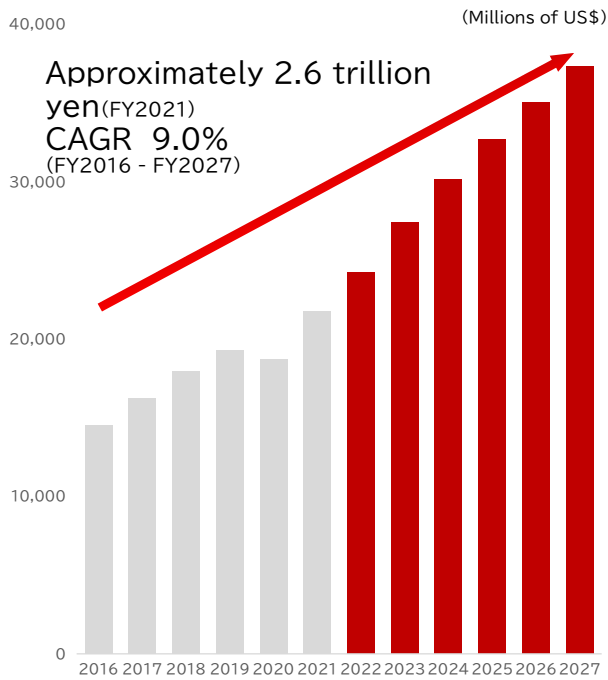
Then there is the intra-workout market, which gives the body the proper nutrients during training so that it does not lack energy.

Lastly, the post-workout market consists of proteins, which is a supplement taken after training to help restore muscle tone and strength. These are the three markets in the sports nutrition industry.

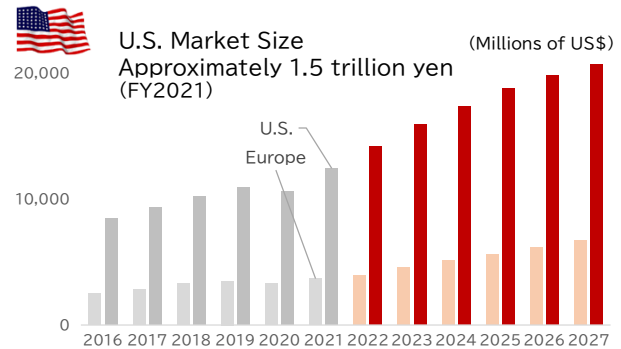
As for the user base, some people may imagine that sports nutritional supplements, or so-called nutrients, are generally only for athletes. However, it is obvious that they play an important role in extending healthy life spans for a wide range of people, young and old, male and female. Improving people's lives through more effective and sustainable sports and exercise plays a significant role in realizing a sustainable society. Therefore, we aim to contribute to society through our sports nutrition products.

Sports Nutrition Market is Expected to Grow Globally

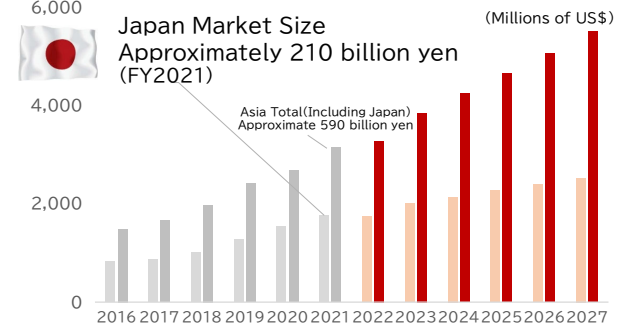
Global Market Size



U.S. and Europe Market Size



Asia and Japan Market Size



\*Source: Euromonitor  
 \*Global, European and Asian markets sizes exclude some regions.  
 \*1US\$ = 120 yen

The market size is JPY2.6 trillion globally. Expected CAGR of 9% from 2016 to 2027.

The US accounts for more than half of that market share, at around JPY1.5 trillion, and some estimates put the market size at around JPY2 trillion.

The size of the Asian market is estimated to be approximately JPY600 billion, with Japan accounting for about one-third of that. Compared to the US market, there is still room for growth.



## Contract Manufacturer of Sports Nutrition Products

Characteristics of the sports nutrition product contract manufacturing market

U.S.: In most cases, brand owners do not have manufacturing capabilities and outsource to OEMs  
 Japan and Europe: Most of brand owners manufacture in-house



Provide speedy, one-stop solutions that include not only manufacturing, but also product design/proposals and raw materials procurement

Largest capacity in North America with the start of operations of Utah plant

As I just mentioned, the sports nutrition market is growing rapidly, but many brand owners do not have their own manufacturing facilities.

For such brand owners, there are OEM and ODM manufacturers, including us, who provide the brand owners with a manufacturing function. The reason for this is that manufacturing the products requires a wide variety of ingredients, blending techniques, and flavoring technologies.

Among these OEMs and ODMs, Prinova Group is developing its business under the name of Armada. The Tennessee plant on the right is a traditional plant with an area of about 35,000 square meters, a little smaller than Tokyo Dome. The photo on the left shows the Utah Plant, which is a newly built plant that was completed in September this year.

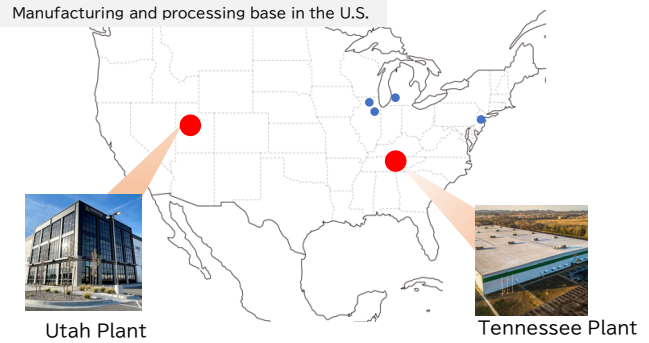
Based on these two manufacturing bases, Prinova Group is handling the production of sports nutrition products.

1

**Plant Operations in Utah, U.S. Started | Building a Stronger Contract Manufacturing Capabilities**

- High demand for contract manufacturing in the sports nutrition field; many inquiries/requests, but lack of capacity at Tennessee plant
- Launched Utah plant and doubled capacity (Phase 1)
- Established a two-site system to meet customer BCP requirements
- Layout design leaves room for future expansion

Manufacturing and processing base in the U.S.



2

**Improved Plant Productivity**

- Pursuing advanced plant management utilizing DX at both the Tennessee and Utah plants
- Evolved into plants where safety is ensured and training is conducted through timely checks of KPIs related to the status of operations and quality
- Promote capacity expansion at Tennessee plant by reviewing existing equipment, flow lines, and improving production processes

Current Capacity

	Utah(Phase 1)	Tennessee
Production Capacity	Approximately 8,400MT/Year	Approximately 13,000MT/Year
Sales	Approximately US\$190 million	Approximately US\$220 million
Floorspace	Approximately 40,000 m <sup>2</sup>	Approximately 31,000 m <sup>2</sup>

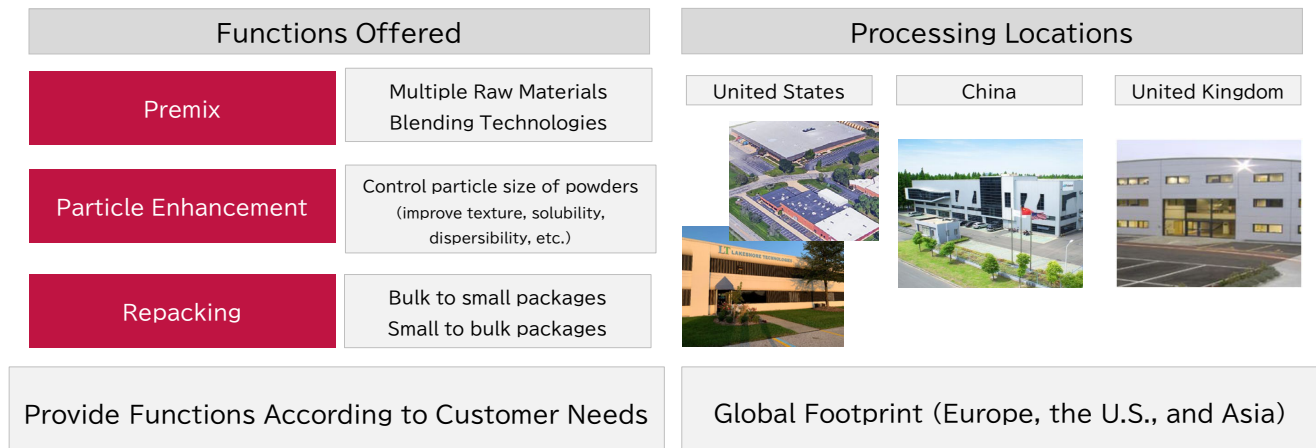
Regarding the expansion of Armada's manufacturing business, Prinova Group has two bases in the US, one in Tennessee and the other in Utah.

The Utah plant, in particular, is equipped with total production control using DX. The Utah plant is equipped with state-of-the-art facilities with higher productivity, and has achieved the production capacity as shown on the right.

We believe that this kind of productivity and factory management will contribute to the reduction of CO2 emissions, and that Prinova Group will continue to grow in the US as an OEM and ODM manufacturer.

Business that Provides a Wide Range of Processing Solutions to Fulfil Customer Needs

Maintain capabilities to solve diverse customer needs on a global basis



Providing high value-added functions to solve diverse needs through our sites in Europe, the U.S., and Asia

**Capable of providing worldwide support to customers with global operations**

The area of manufacturing and processing other than the Armada business explained earlier is what we call the Solutions business.

In this business, we offer a technology called premix, which is a multi-ingredient blending technology.

In addition, we provide technology for fine-tuning and particle size adjustment for large and small materials. We also offer a repacking technology that changes the size of the packing, including the shipping form, to match the input size of the compounded product.

Prinova Group has manufacturing facilities in the US, UK, and China for its Solutions business, providing global customers with a consistent quality commitment and product supply.

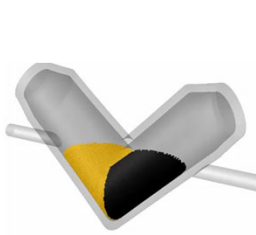
Solutions | Expand Processing Capabilities and Improve Profitability

Acquired Further Processing Capabilities (Particle size control)

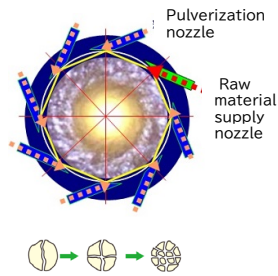
- Increased capacity through the acquisition of Lakeshore Technologies, expanding footprint in the U.S.
- Considering to invest in additional processing capabilities to address a broader range of customer issues (estimated investment of US\$5 million)

Lakeshore Technologies' Technologies and Strengths

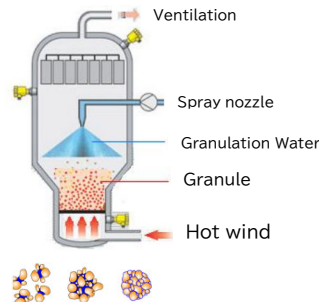
Provides a wide variety of high-quality, competitively priced powder processing (mixing/dispersion, micronization, granulation)



Mixing & Dispersion  
(V type Blender)



Micronizing  
(Jet Milling)



Granulation  
(Planned Investment)



Lakeshore Technologies  
Location: Michigan, U.S.A.

In the Solutions business, we made a business acquisition last year. In order to gain capacity with higher technology, we acquired Lakeshore Technologies, a company based in Michigan, US.

This company has unique and detailed technology. I would like to introduce three technologies.

The company's basic technologies include mixing, granulation, and micronizing. Especially in the granulation technology, we are planning to invest in more facilities to expand the production system.

Since this company is located in Michigan, a state right next to Illinois, where Prinova Group's headquarters is located, we believe that we will be able to integrate their technology with Prinova Group's existing technologies and coordinate the production system.

## Expanding the Application Lab to Enhance Customer Solutions

## Background/Issues

- Expanding sales of TREHA™ and other products through the Prinova Group's sales network was one of the synergies expected at the time of acquisition
- To sell functional ingredients, we must identify customer issues, propose solutions, and have them experience the value of our products

  
**Preparing to establish a third overseas lab in the U.S., following China and Singapore**



Japan



Singapore



China

- Promote proposals and application development tailored to the food culture and customer needs in North America
- Establish a base to utilize Hayashibara's ability to propose solutions

Now that I have discussed Prinova Group's strengths, I would like to explain the Group synergies as part of our growth strategy.

The NAGASE Group has a biotech company named Hayashibara, which manufactures and supplies highly functional products. In order to strengthen our ability to make stronger and better proposals to our customers, Hayashibara is currently developing application labs in Japan.

These application labs are located in cities such as Tokyo and Okayama, and the Group is also pushing for the development of these labs in Singapore and China. We are also preparing to expand these application labs to the US in the future.

These applications labs have already had a lot of success in Japan in terms of getting customers to understand and experience the functionality of our products. We expect to see similar results in Asia as a whole, China, and the US.



## Hayashibara's Functional Ingredients as Sports Nutrition

Pre-workout

### HAYASHIBARA HESPERIDIN S

- A polyphenol contained in citrus fruits such as mandarin oranges
- **Increases blood flow for improved pre-sport conditioning and training efficiency**

Intra-workout

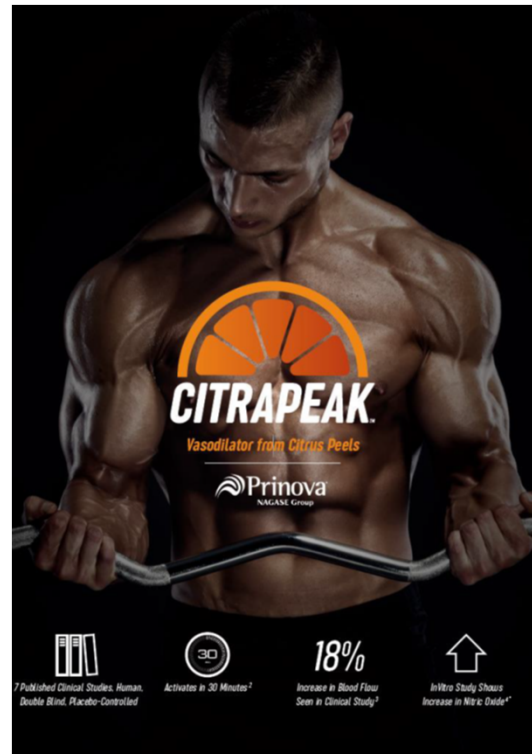
### TREHA™

- Trehalose is a functional carbohydrate found in mushrooms and other foods
- **Energy source to sustain performance until the last spurt**

Post-workout

### Fibryxa™

- Soluble fiber produced from starch through the power of enzymes
- Improves intestinal environment which mitigates the negative effects of protein and other substances



HAYASHIBARA HESPERIDIN S Sold in the United States Under the CITRAPEAK Brand Name

Through these application labs, we are developing more functional products for the American market, with a particular focus on the sports nutrition market.

Hayashibara has a lineup of pre-workout, intra-workout, and post-workout products. We will continue to develop and offer products that will be more accessible to American customers through our application labs.

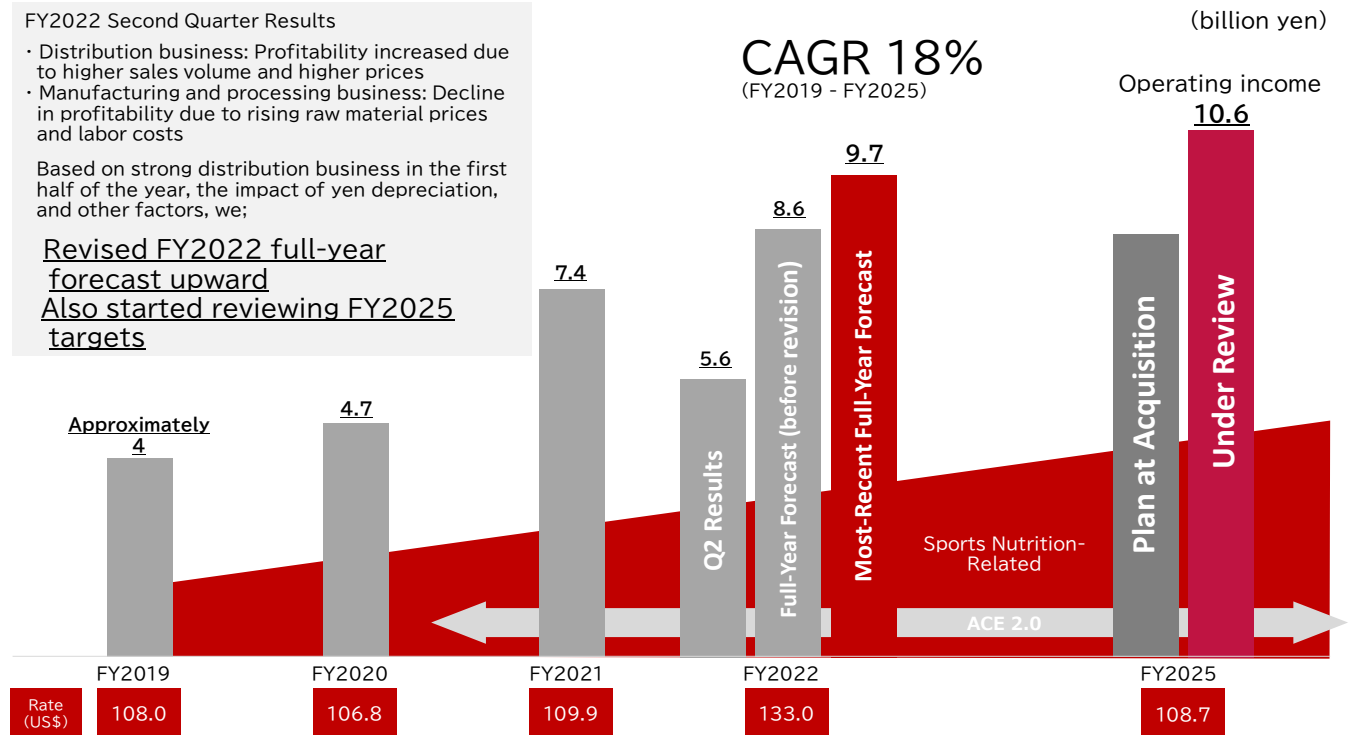
## Expand Business at a Rate Outpacing the Growing Sports Nutrition Market

### FY2022 Second Quarter Results

- Distribution business: Profitability increased due to higher sales volume and higher prices
- Manufacturing and processing business: Decline in profitability due to rising raw material prices and labor costs

Based on strong distribution business in the first half of the year, the impact of yen depreciation, and other factors, we:

Revised FY2022 full-year forecast upward  
Also started reviewing FY2025 targets



\*The figures above are the results of the Prinova Group and do not include amortization of goodwill and other expenses incurred at the time of consolidation

\*FY2019 Operating income: Excludes special expenses related to M&A

Prinova Group has grown steadily since we acquired it in August 2019. We expect the current fiscal year to be another year of strong growth, exceeding our initial targets. We are particularly excited about the growth of the sports nutrition market, and are determined to make company-wide efforts to achieve even greater growth than before.

In the chart you are looking at now, the outlook for the sports nutrition market is shown in a thin red sloping line. We are committed to achieving further growth by 2025, and we will continue to work hard to achieve this goal.

This concludes my explanation of the status of operations at Prinova Group. Thank you very much.

# Appendix



# ACE 2.0 Basic Policies

Become a true “Business designer”

## ACE 2.0 “Pursuit of Quality”

With a mindset focused on Accountability (A), Commitment (C) and Efficiency (E), and to enable its sustained growth, **NAGASE will work to give concrete shape (business, mechanisms, culture)**  
(Pursuit)  
**to the aspirations expected by all of its stakeholders.**  
(Quality)

### Reform of Profit Structure

#### Create a profit base toward the Ideal NAGASE

- (1) Pursuit of profitability and efficiency**
  - Implement a company-wide asset replacement and reallocation of resources
- (2) Strengthen existing businesses**
  - Expand business opportunities through globalization
  - Improve productivity of manufacturing businesses and expand value-added through technical innovation
- (3) Create sustainable businesses (N-Sustainable business)**

### Reform of Corporate Culture

#### Mindset toward the Ideal NAGASE

- (1) Pursuit of economic and social value**
  - Fostering a sustainability mindset, and rigorous monitoring of financial and non-financial indicators
- (2) Pursue efficiency**
  - Deepen awareness of capital efficiency
  - Improve productivity of core operations
- (3) Strengthen human resources to drive reforms**

### Functions supporting reforms

- (1) Accelerate DX further**
- (2) Promote sustainability**
- (3) Strengthen corporate functions**

# Quantitative Goals

## “Pursuit of Quality” Key Goal Indicators (KGIs)

Measures	Indicators	FY2020	FY2025*
Improvement in capital efficiency	ROE	5.9%	8.0% or greater
Increased profitability	Operating Income	21.9 billion yen	35.0 billion yen

\* FY2025 assumptions: 1 US\$= 108.7 yen, 1 RMB = 15.6 yen

## Key Performance Indicators (KPIs) for achieving the “Pursuit of Quality”

Measures	Measures	Indicators	FY2020	FY2025
Reform of Profit Structure	Company-wide asset replacement and reallocation of resources	Growth investments*1	—	150.0 billion yen or more*2
		Secure 10% of company-wide invested capital and reinvest in focus and develop areas	—	10% or more
	Create “N-Sustainable businesses”	Operating Income	—	5.0 billion yen or more*3
	Improve productivity of manufacturing and expand value-added through technical innovation	Manufacturing business operating income*4	13.8 billion yen*5	20.0 billion yen or more
Reform of Corporate Culture	Improve productivity of core operations	Ratio of gross profit to general administrative expenses*6	57.1%*7	52.1%
	Deepen awareness of capital efficiency	Net DE ratio	0.23 times	0.5 times or less
Functions supporting reforms	Accelerate DX further	Invested capital (including expenses)*8	2.4 billion yen	10.0 billion yen*2

\*1 N-Sustainable investment, new business investment, DX-related investment, R&D expense, working capital

\*2 5-year cumulative figure

\*3 Figure based on internal management

\*4 Simple sum calculation

\*5 Manufacturing classifications were reviewed, and Prinova Group reclassified as a manufacturing business from FY2021; FY2020 results shown are also based on that reclassification.

\*6 Excludes R&D expense, amortization of goodwill and other acquisition-related intangible assets, and profit and loss due to amortization of actuarial differences

\*7 Average figure for past five years (FY2016-FY2020)

\*8 Five-year cumulative total of 10.0 billion yen in DX-related investments is included in growth investments of 150.0 billion yen



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**These presentation materials contain projections based on forward-looking assumptions, forecasts, and plans as of November 25, 2022. Actual earnings may differ from projections due to risks and uncertainties in the future global economy, competitive landscape, currency exchange rates, etc.**