

Presentation Material

Management Overview

May 25, 2022

 **NOF CORPORATION**

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**Mid-Term Management Plan (2022)
(From April 1, 2020 to March 31, 2023)**

 **Outline**

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Mid-Term Management Plan (2022) (From April 1, 2020 to March 31, 2023)

Outline

Our Vision and Management Plan

Our Vision for 2025

A corporate group that co-creates new value with the power of chemistry in the three business fields of “Life/Healthcare”, “Electronics/IT” and “Environment/Energy” in order to realize a prosperous and sustainable society.

NOF VISION 2025

2022 Mid-Term Management Plan Stage I (FY2020-2022)

Strengthening foundation
(FY2022)

Operating income: ¥29 billion
Ratio of operating income
to net sales: Over 15%

2025 Mid-Term Management Plan Stage II (FY2023-2025)

Expanding profit
(FY2025)

Operating income: ¥38 billion
Ratio of operating income
to net sales: Over 15%

2022 Mid-Term Management Plan(Stage I)

Management Policy

“Challenge and Co-create”

Basic Strategies

1. Expand business into growth markets
2. Accelerate development of new products and techniques
3. Strengthen collaboration internally and externally
4. Improve productivity
5. Promote CSR activities

Strategies

- Active investment in growth fields
- Improvement in profitability of less profitable businesses

Mid-Term Management Plan (2022) (From April 1, 2020 to March 31, 2023)

 Progress

Business Environment in FY2022

Business Environment surrounding NOF Group

- COVID-19
⇒ Gradually being contained
- Ukraine crisis
⇒ Uncertain
- Semiconductor shortage
⇒ Will continue for some time
- Foreign exchange
⇒ Weakening of the yen will continue



Demand is on a recovery trend. There are growing impacts on supply chains as well as raw material and fuel prices.

		FY2020 -2022 Plan	FY2021 Actual	FY2022 Forecast
Palm oil ※	USD/MT	660	1,055	1,600
Domestically produced naphtha	JPY/KL	35,000	56,600	76,000
Exchange rates	JPY/USD	105	112	120
	JPY/EUR	120	131	135

※FOB Malaysia

Overview of the FY2022 Business Results Forecast

FY2021 Results and FY2022 Forecast

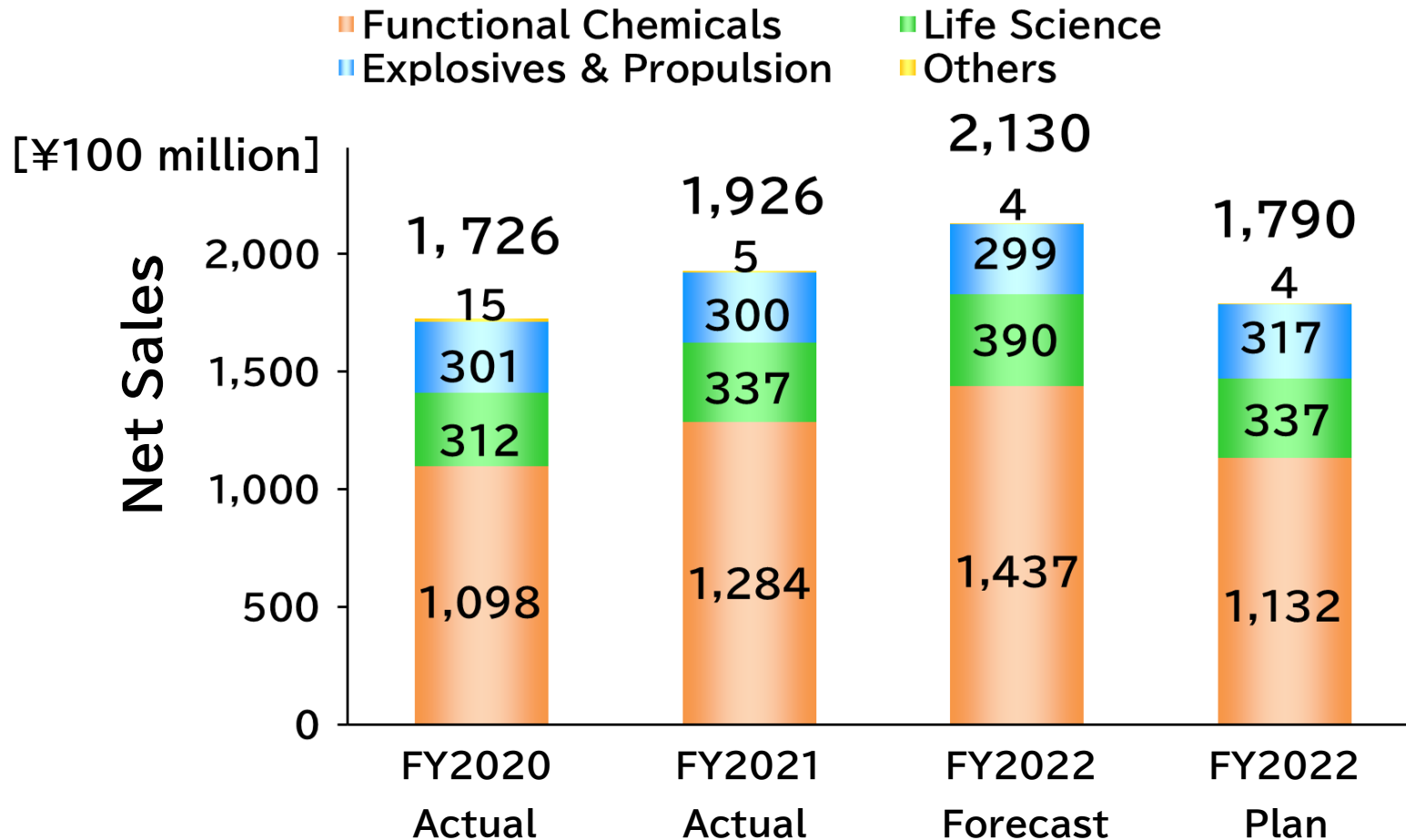
[¥100 million]

	FY2021 Actual	FY2022 Forecast
Net sales	1,926	2,130
Operating income	356	345
Ordinary income	376	356
Net income ※	267	251

※Net profit attributable to parent company shareholders for the period

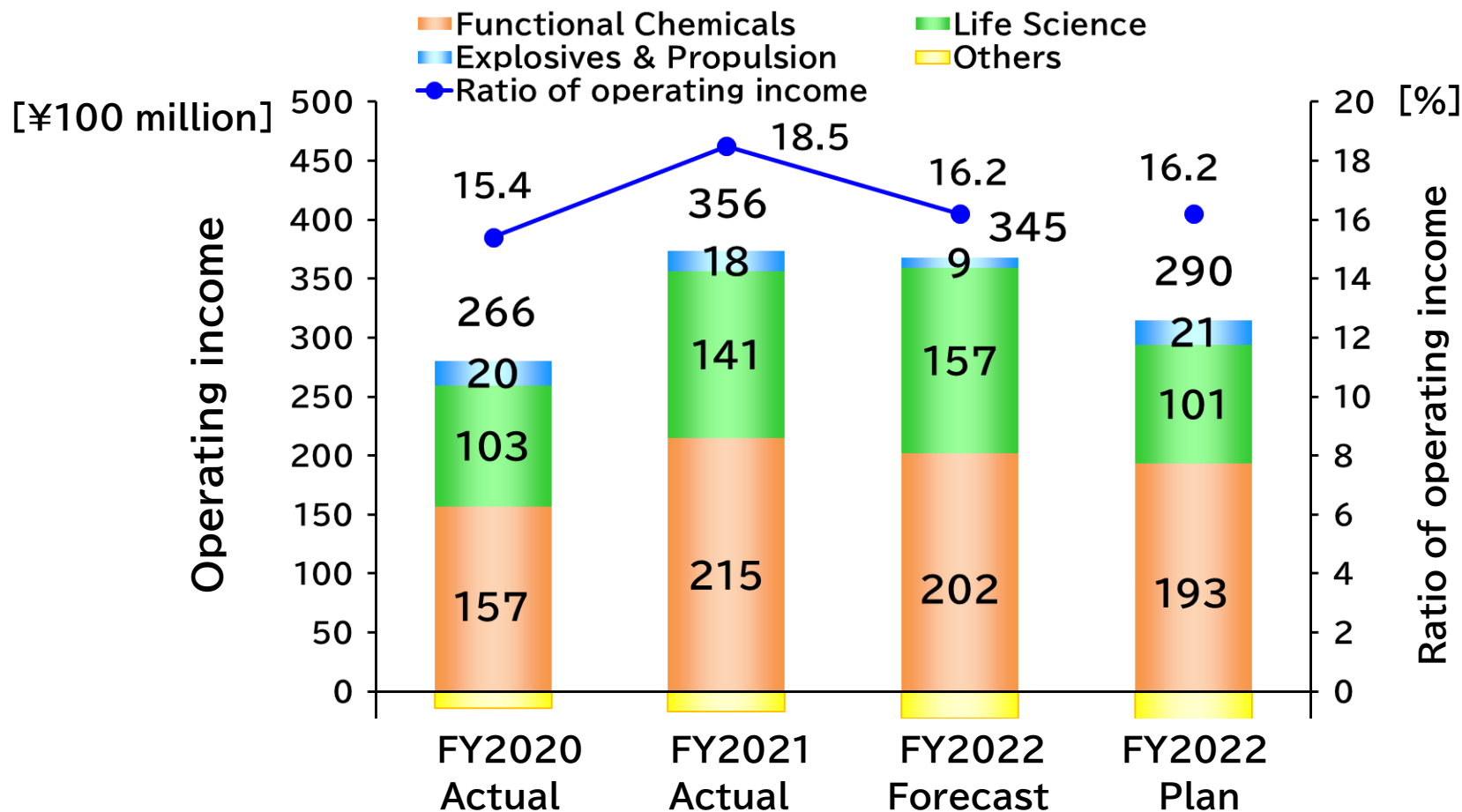
Net Sales Trend

FY2020-21 Results and FY2022 Forecast



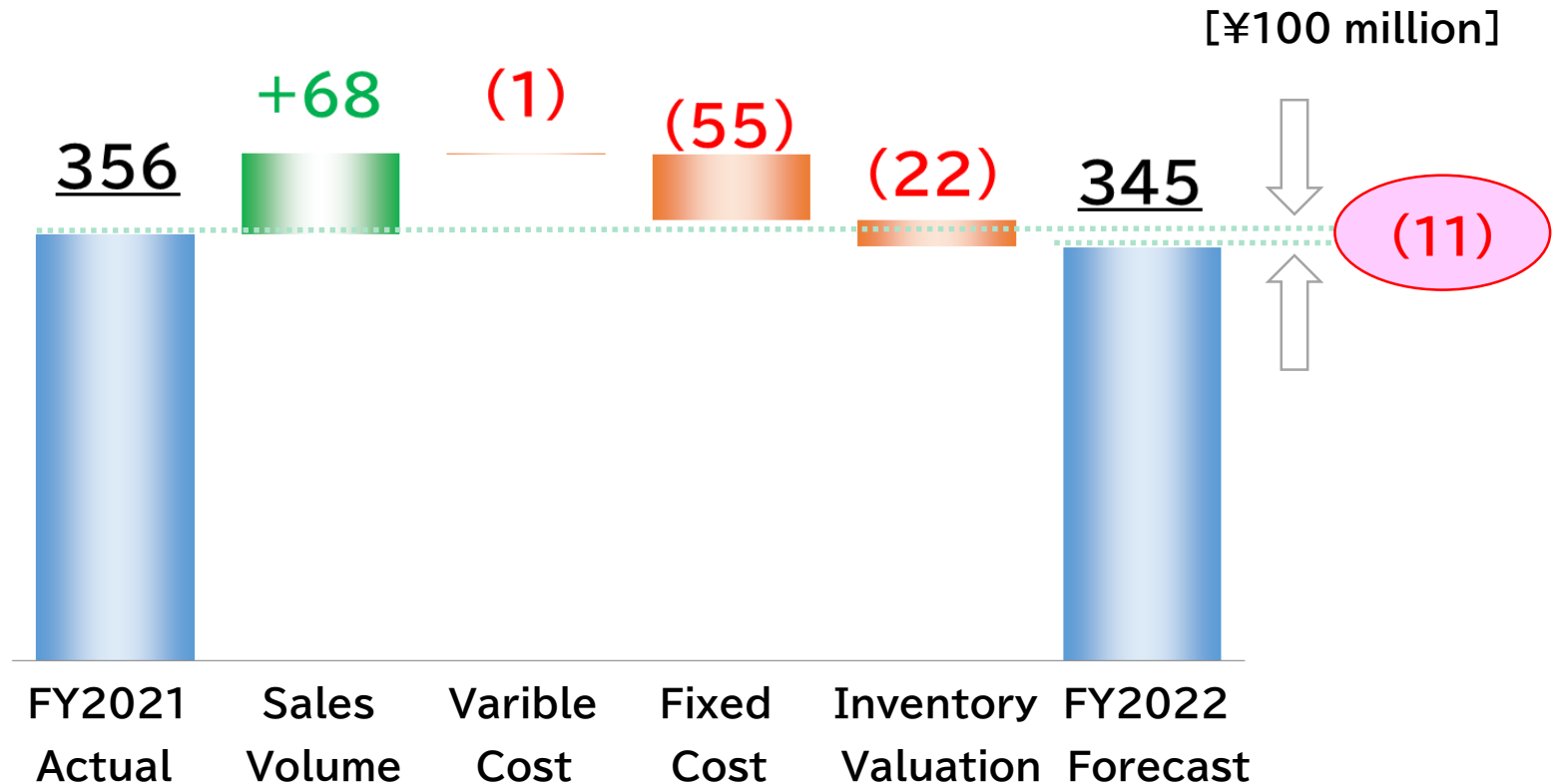
Operating Income Trend

FY2020-21 Results and FY2022 Forecast



Changes in Operating Income

FY2022 Forecast vs FY2021 Actual



Functional Chemicals Segment

FY2021 Summary and FY2022 Forecast

FY2021

- Base material for refrigerating oils and cosmetics materials
⇒ Despite demand recovery, significant impacts of raw material and fuel prices
- Special anti-corrosion agents
⇒ High product demand for automobiles

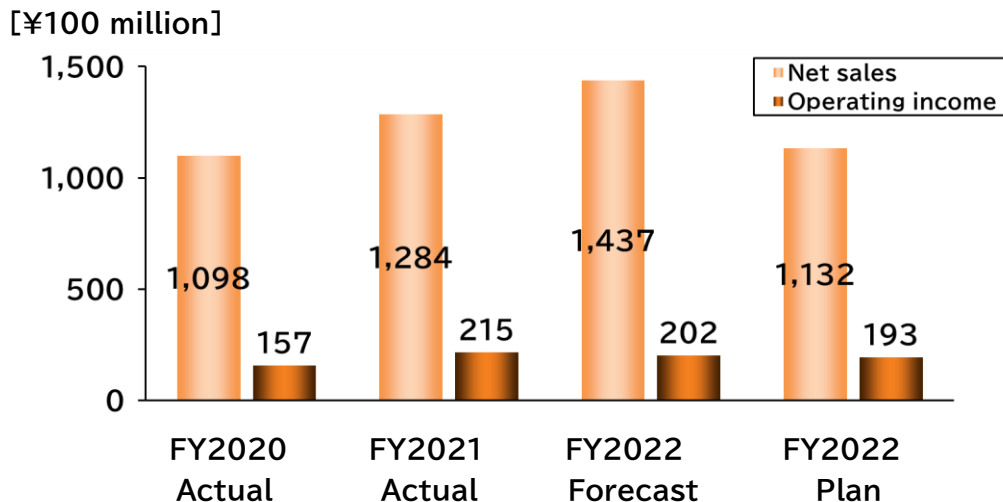
FY2022

- Base material for refrigerating oils and cosmetics materials
⇒ Increased impacts of raw material and fuel prices (Domestically produced naphtha: 34% increase y/y)
- Special anti-corrosion agents
⇒ Product demand remains high for automobiles

Unclear impact of semiconductor shortages

[Analysis of Changes in operating income (FY2022 Forecast vs FY 2021)]

Sales Volume	Variable cost	Fixed Cost	Inventory Valuation	Total
+30	(7)	(22)	(13)	(12)



Life Science Segment

FY2021 Summary and FY2022 Forecast

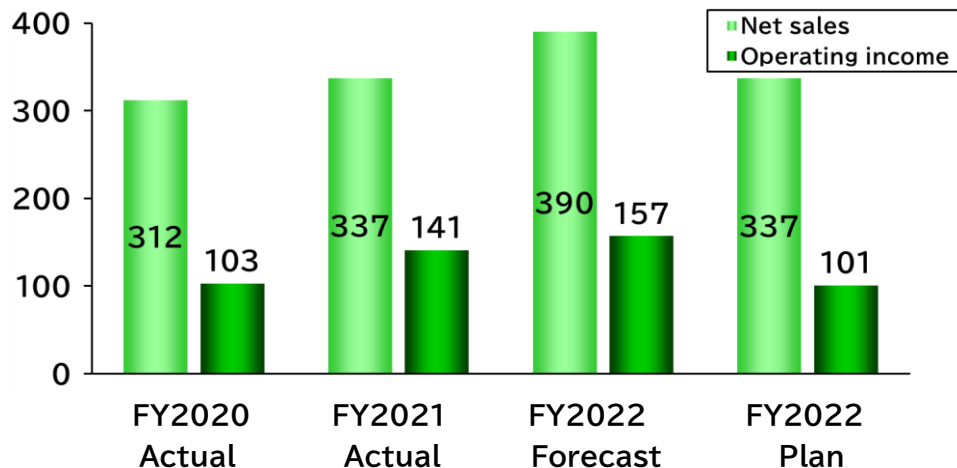
FY2021

- Materials for pharmaceutical formulation
⇒ Increased product demand for COVID-19 vaccines
⇒ High product demand for other biopharmaceuticals as well
- Edible Oils
⇒ Significant impacts of raw material and fuel prices

FY2022

- Materials for pharmaceutical formulation
⇒ Enhancement of the production system in response to increased demand
- Biocompatible materials
⇒ Recovery in demand
- Edible Oils
⇒ Despite recovery of consumer spending, continued impacts of raw material and fuel prices
(Palm oil: 52% increase y/y)

[¥100 million]



[Analysis of Changes in operating income (FY2022 Forecast vs FY 2021)]

Sales Volume	Variable cost	Fixed Cost	Inventory Valuation	Total
+44	+4	(22)	(9)	+17

Explosives & Propulsion Segment

FY2021 Summary and FY2022 Forecast

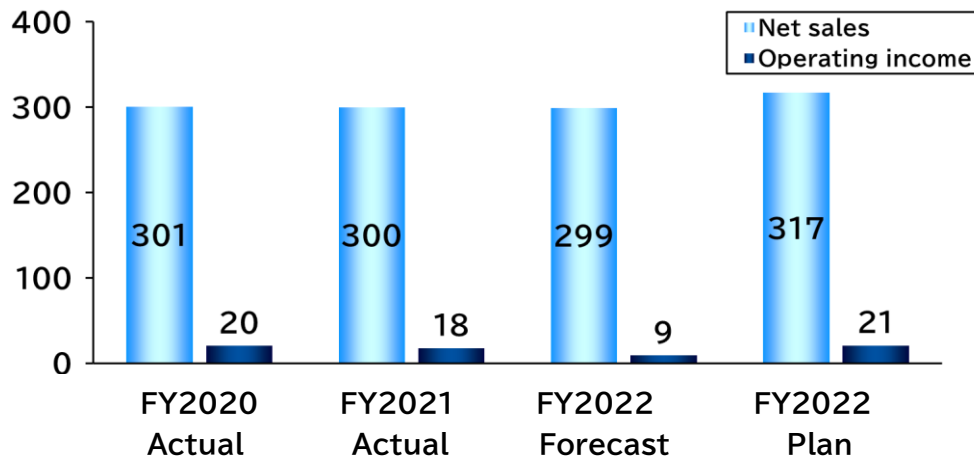
FY2021

- Industrial Explosives
⇒ High product demand for the Hokkaido Shinkansen, for example (Maglev train construction has been delayed in some sections)
- Space-related products
⇒ Postponement of the launch of the flagship rocket

FY2022

- Defense-related products
⇒ Accidents at raw material sources (Our production was also affected)
- Space-related products
⇒ Profitability improvement by productivity enhancement

[¥100 million]



[Analysis of Changes in operating income (FY2022 Forecast vs FY 2021)]

Sales Volume	Variable cost	Fixed Cost	Inventory Valuation	Total
(6)	+1	(4)	(0)	(9)

Basic Strategies in Mid-Term Management Plan

Basic Strategies

1

Expand Business into Growth Markets

2

Accelerate Development of
New Products and Techniques

3

Strengthen Collaboration
Internally and Externally

4

Improve Productivity

5

Promote CSR Activities

Strategy to Expand Business into Growth Markets

Acceleration of Further Growth

- Continued demand recovery in the Functional Chemicals segment
- Demand growth in the Life Science segment (especially the DDS business)

Upscaling of Facilities to Meet Demand

- Materials for pharmaceutical formulation manufacturing facility(Kawasaki Works)⇒Start operation in FY2021
- Ethylene oxide derivatives manufacturing facility(Kawasaki Works)⇒Start operation in FY2021
- Pilot facility for the polyimide material used in the electronics and IT field (Amagasaki Plant)⇒To start operation in FY2023

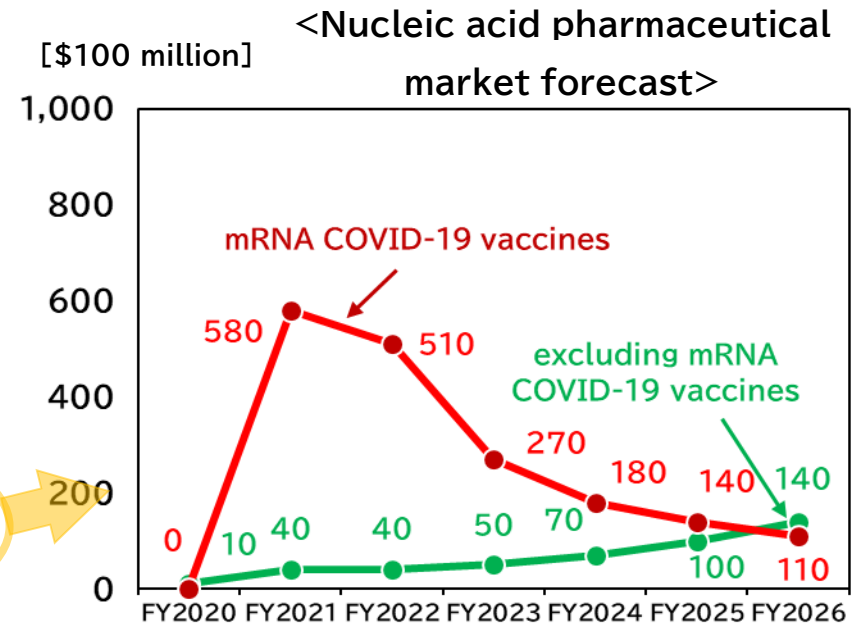
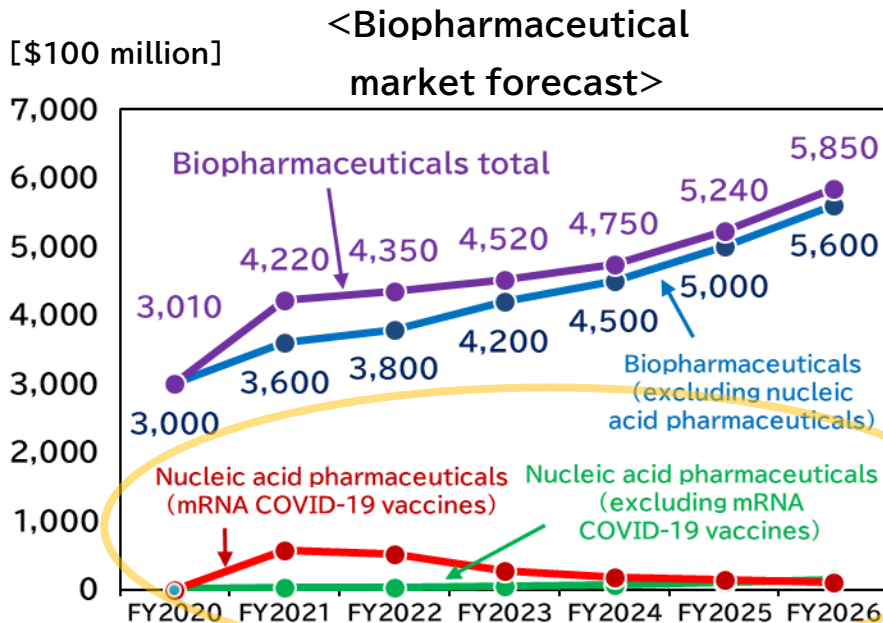
Entry into Overseas Markets

- Business expansion in the Functional Chemicals and Life Science segments ⇒ Overseas sales: 30% or more of all sales

Acceleration of Further Growth

Growth in Demand for the DDS Business

- The biopharmaceutical market is predicted to grow rapidly in the future. (growth rate of 10% or higher)
- In FY2021, development of nucleic acid pharmaceuticals, such as COVID-19 vaccines, accelerated.
- As demand for COVID-19 vaccines stabilizes, demand for other nucleic acid pharmaceuticals will grow.



* NOF estimate based on Evaluate Pharma data

Upscaling of Facilities to Meet Demand

Capital Investment Plan, Results and Schedule

[¥100 million]

	FY2020- FY2022 Plan	FY2020-FY2022 Actual and Plan			
		FY2020 Actual	FY2021 Actual	FY2022 Forecast	Total
Capital expenditures ※	257	84	64	85	233
Depreciation & Amortization	178	56	59	61	176

※ Acceptance basis

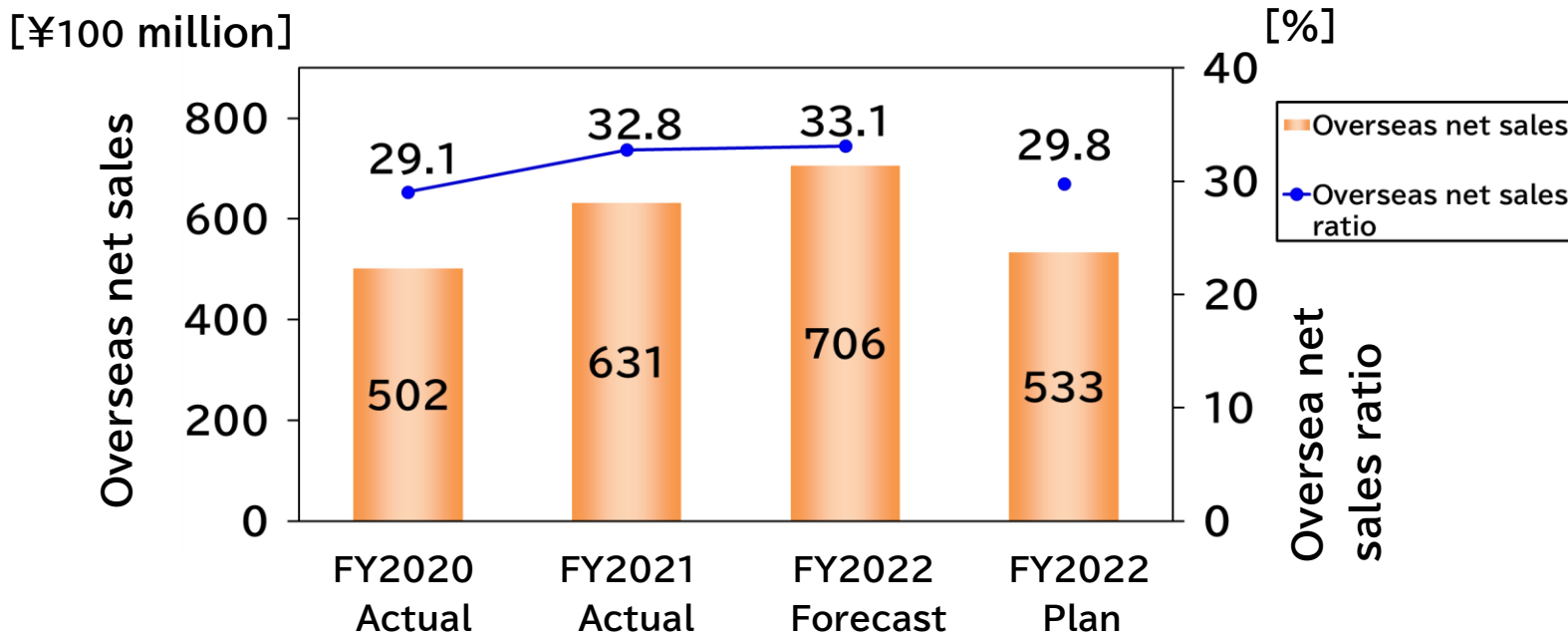
Manufacturing facility construction due to growth in demand in the DDS business

⇒Kawasaki Works (Start operation in FY2021; 2.4 billion yen)

⇒Aichi Works (To start operation by FY2025; over 10 billion yen)

Entry into Overseas Market

Overseas Sales Trend and Percentage of All Sales



- Materials for pharmaceutical formulation:Exports to pharmaceutical manufacturers in Europe and the US
- Special anti-corrosion agents :Local production and supply to automobile manufacturing bases around the world
- Base material for refrigerating oils:Production in China to meet demand across Asia.

Strategy to Accelerate Development of New Products and Techniques

Research and Development Cost Plan, Results and Schedule

[¥100 million]

	FY2020- FY2022 Plan	FY2020-FY2022 Actual and Plan			
		FY2020 Actual	FY2021 Actual	FY2022 Forecast	Total
Functional Chemicals	90	28	28	31	86
Life Science	44	13	15	16	44
Explosives & Propulsion	44	14	14	14	41
Others ※	20	3	5	10	18
Total	198	58	61	71	190

※ Research and industry-academia collaboration on advanced medicine and regenerative medicine in the I&S Department ⇒ Construction of a new, GMP-compliant, small-lot prototyping facility (in FY2021); strengthening of sample supply capacity

Strategy to Strengthen Collaboration Internally and Externally

Promotion of open innovation

FY2021: Invitation of public bidding for partners in industry-academia collaboration projects in the biochemical and thermal control material fields

FY2022: Start of sponsored research on adopted themes

Continuation of public bidding invitation for wider research areas

(1) Biochemicals

- Biomass-derived materials and a derivatization technique for the same

(2) Thermal control material

- Heat storage: Heat-storing material for effective use of unused exhaust heat
- Heat insulation: Highly efficient and moldable heat insulation material
- Heat release: Heat-releasing material using a binder that promotes heat dissipation

Strategy to Improve Productivity

Efforts towards Digital Transformation (DX)

『DX Vision』

To realize productivity improvement as well as the ability to develop new products and techniques by effectively using digital data and technology.

- (1) R&D Department ⇒ **Improvement of R&D efficiency**
(introduction of materials informatics (MI))
- (2) Production Group ⇒ **Realization of smart factories**
(construction of a new DDS plant and conversion of existing plants to the smart factory model)

DX Efforts (R&D Department)

Improvement of R&D Efficiency

Introduction of Materials Informatics (MI)

Vision: Improvement of efficiency and acceleration of R&D through the introduction and use of MI techniques

Description of the efforts:

(1) Introduction and use of MI techniques

- Selection of themes (FY2020)
- Implementation of proof of concept (FY2021)



Confirmation of usability under multiple themes
⇒ Use in the Business Group
⇒ Addition of new themes

(2) Development of human resources with MI skills

Third-party seminars and internal education (since FY2020)

DX Efforts (Production Group)

Realization of Smart Factories

Construction of a new DDS plant and
conversion of existing plants to the smart factory model

Vision: Realization of highly productive plants that are safe and
easy to work in

Description of the efforts:

(1) Use of digital data
Data visualization,
sharing and analysis



Use of data to achieve optimal
manufacturing conditions, quality,
stock management,
and facility maintenance

(2) Workload reduction (mechanization and automation)

(3) Passing down of techniques and skills (standardization and sharing)

Strategy to Promote CSR Activities

Provide New Value to Realize a Prosperous and Sustainable Society

- Realize innovation through business activities
- Supply high-function and high-value added products in the three prioritized business fields

Strengthen the Business Foundation

- Create a comfortable workplace and support employees' activities
- Improve resilience through CSR-based procurement and the development of BCPs

Promote Responsible Care Activities

- Enhance the management of chemicals and labor safety
- **Response to climate change**

Activities to Combat Climate Change (1)

Climate Change Response Policy

- Support for the Task Force on Climate-Related Financial Disclosures (TCFD)
- Long-term target: Achieve carbon neutrality by 2050
- Medium-term target: Reduce GHG emissions 40% by 2030 (from the 2013 level)

GHG Emissions Reduction Measures

- Cross-sectional implementation of existing energy-saving measures
- Shift to using renewable energy
- Consideration of new processes and techniques

Activities to Combat Climate Change (2)

Innovation for Decarbonization

- R&D activities, such as industry-academia collaboration projects
 - ⇒ Biomass-derived materials and a derivatization technique for the same
 - ⇒ Heat-storing material production techniques to effectively use unused exhaust heat

Offering of Products that Contribute to Sustainability

- Electric vehicles
 - ⇒ Dispersants for electronic components, lubricants for electronic units, noise reduction agents, anti-corrosives
- Wind power generation / solar power generation
 - ⇒ Biodegradable hydraulic oil, anti-corrosives, organic peroxides for extra-high-voltage and high-voltage electric power lines
- Meat alternatives
 - ⇒ Emulsified oil for meat alternatives

Progress towards the FY2022 Mid-Term Management Plan

FY2022 Plan and Forecast

[¥100 million, (%)]

	FY2021 Actual	FY2022 Forecast	FY2022 Plan	FY2025 Plan
Net Sales	1,926	2,130	1,790	2,100
Operating Income	356	345	290	380
Ratio of operating income to net sales	18.5	16.2	Over 15	Over 15
ROA *1	13.4	Over 10	Over 10	—
ROE *2	12.6	Over 10	Over 10	—

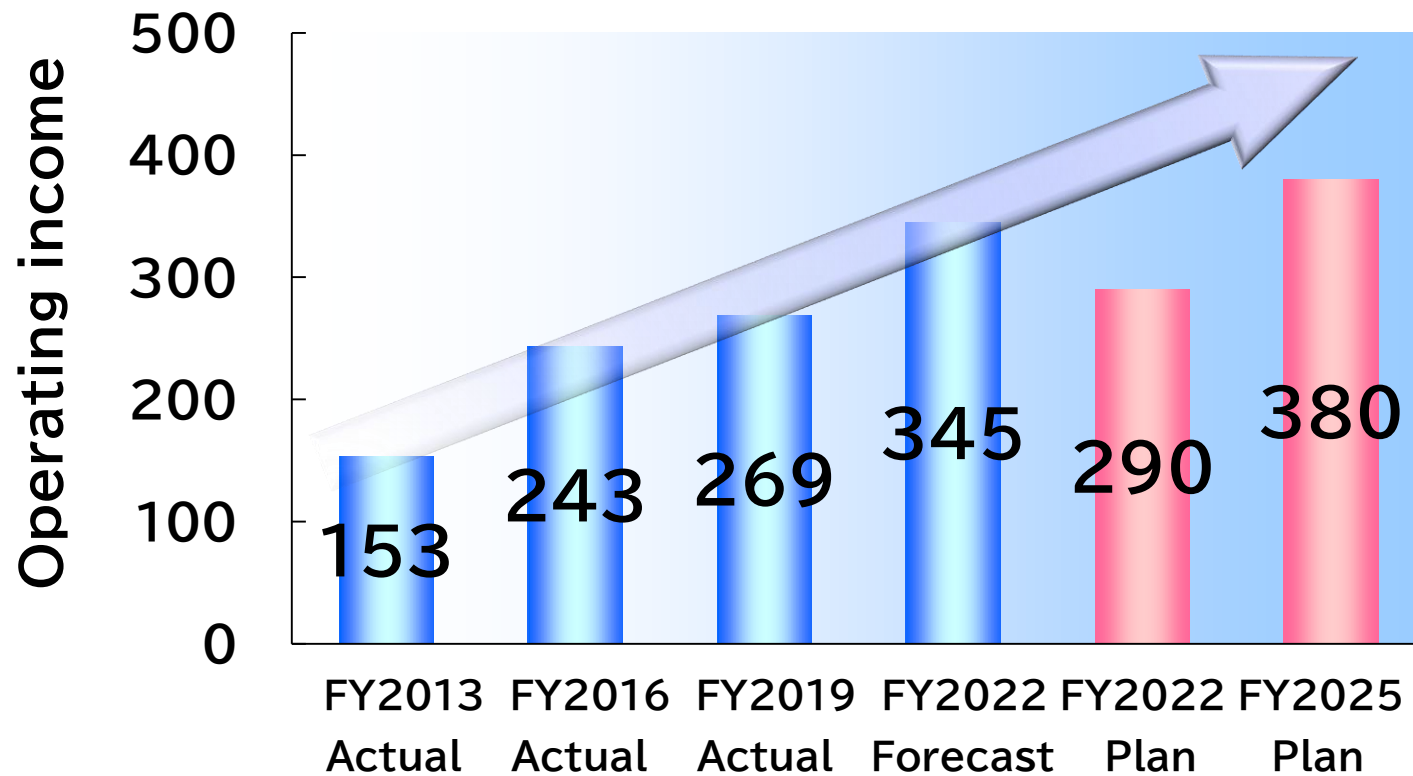
*1 ROA: Return on Assets, ratio of ordinary income to total

*2 ROE: Return on Equity, ratio of net income to shareholders equity

Toward the Achievement of the FY2025 Plan

FY2025 Mid-Term Management Plan

[¥100 million]



- This material is intended to provide an explanation of the company and its business, not to induce investment or any other action.
- The results forecasts presented in this document are based upon currently available information and assumptions deemed rational. A variety of factors could cause actual results to differ materially from forecasts.
- Please be aware that decisions regarding investments are the responsibility of the users themselves.
- Please note that, in this material, amounts less than ¥100 million have been rounded off.

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