

# Financial Results Briefing for the Fiscal Year Ended March 31, 2023



Kanto Denka Kogyo Co., Ltd.  
(Tokyo Stock Exchange Prime Market,  
Securities Code: 4047)

May 23, 2023

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# Overview of Financial Results for the Fiscal Year Ended March 31, 2023

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# Key Earnings Data

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## ■ FY2022

- **Achieved record highs for net sales and each profit indicator.**
- **Sales increased significantly due to growth in sales volume and price revisions, despite the impact of production adjustments by semiconductor manufacturers in the second half.**
- **Prices of raw materials such as lithium compounds, tungsten and anhydrous hydrofluoric acid increased markedly alongside rising electricity costs.**

## ■ FY2023

- **Semiconductor price adjustments are expected to continue throughout FY2023 with a full recovery anticipated in FY2024.**
- **For battery materials, high-priced raw materials purchased in FY2022 are scheduled for use in the first half.**

# Statement of Income

(Billions of yen)

	FY2021	FY2022	Difference	% change
<b>Net sales</b>	62.2	78.6	16.3	26.3
<b>Operating profit</b>	11.1	12.9	1.7	16.0
<b>Ordinary profit</b>	11.1	13.6	2.5	22.7
<b>Profit before income taxes</b>	11.1	13.4	2.2	20.3
<b>Profit attributable to owners of parent</b>	7.7	9.3	1.6	20.9
<b>Basic earnings per share (yen)</b>	135.12	163.32	28.2	

# Balance Sheet

(Billions of yen)

	FY2021	FY2022	Difference	% change
<b>Assets</b>	<b>109.9</b>	<b>130.7</b>	<b>20.8</b>	<b>19.0</b>
Cash and deposits	26.7	22.3	-4.3	-16.4
Trade receivables	18.0	21.6	3.6	20.4
Inventories	13.1	23.9	10.7	82.1
Non-current assets (tangible + intangible)	38.9	48.0	9.1	23.4
<b>Liabilities</b>	<b>49.9</b>	<b>61.9</b>	<b>11.9</b>	<b>24.0</b>
Interest-bearing debt	30.9	37.7	6.8	22.3
Trade payables	8.9	10.6	1.7	19.5
Income taxes payable	2.6	2.7	0.1	3.9
<b>Net assets</b>	<b>59.9</b>	<b>68.7</b>	<b>8.8</b>	<b>14.8</b>
Equity ratio (%)	53.0%	51.6%	-1.4%	

## ■ Highlights

### Level of cash and deposits

We plan to mainly allocate cash and deposits toward growth investments and consider the level of cash and deposits to be appropriate.

### Reason for increase in inventories

Inventories are increasing due to a significant rise in lithium compound prices, which is impacting unit prices.

# Fundamental Chemicals Division

(Billions of yen)

	FY2021	FY2022	Difference
<b>Net sales</b>	7.9	9.4	1.4
<b>Operating profit (loss)</b>	(0.0)	0.3	0.3

## Net sales

- **Caustic soda:** Sales increased due to effects from price revisions, despite lower sales volumes
- **Hydrochloric acid:** Sales increased due to effects from price revisions, despite lower sales volumes
- **Trichloroethylene:** Sales increased due to effects from price revisions, despite lower sales volumes
- **Perchloroethylene:** Sales increased due to effects from price revisions, despite lower sales volumes

## Operating profit (loss)

- **A turnaround to profitability was achieved as increases in raw material and fuel prices were absorbed through price revisions.**

# Fine Chemicals Division

(Billions of yen)

	FY2021	FY2022	Difference
Net sales	49.0	63.9	14.9
Operating profit	10.0	11.4	1.4

## Net sales

- Nitrogen trifluoride: Sales increased due to effects from price revisions, despite lower sales volumes
- Tungsten hexafluoride: Sales increased due to higher sales volumes
- Hexafluoro-1,3-butadiene: Sales increased due to higher sales volumes
- Lithium hexafluorophosphate: Sales increased due to effects from price revisions

## Operating profit

- Profit was up thanks to sales growth beyond increases in raw material and fuel prices and depreciation.

# Ferrochemicals, Commercial Business, Facilities Divisions

(Including consolidation adjustments)

(Billions of yen)

	FY2021	FY2022	Difference
<b>Net sales</b>	5.3	5.3	0.0
<b>Operating profit</b>	1.1	1.1	-0.0

## Ferrochemicals

Sales were up due to increased sales of carriers.

## Commercial Business

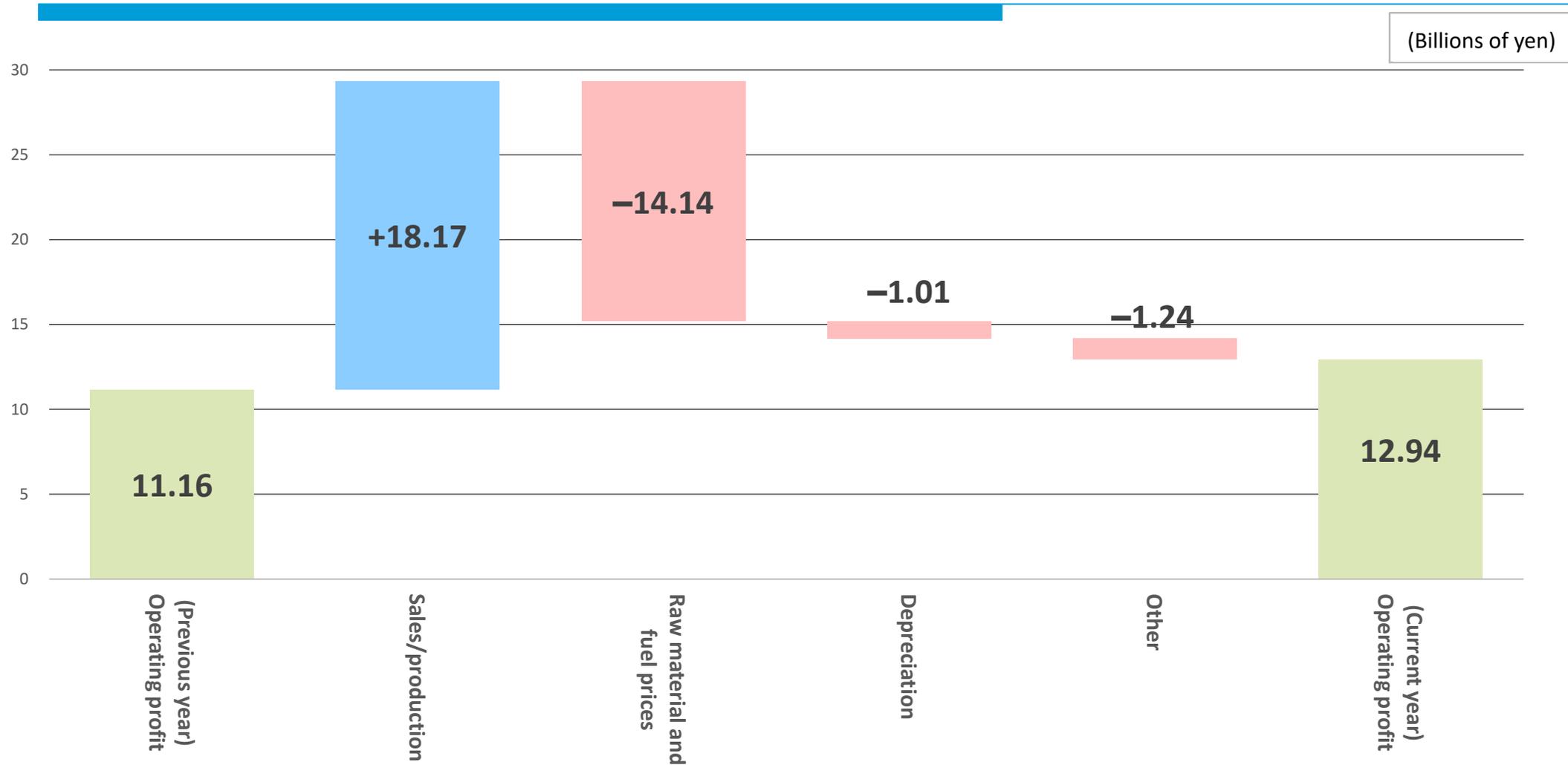
Sales were down due to lower sales of chemical products.

## Facilities

Sales were up due to more contract work at a consolidated subsidiary.

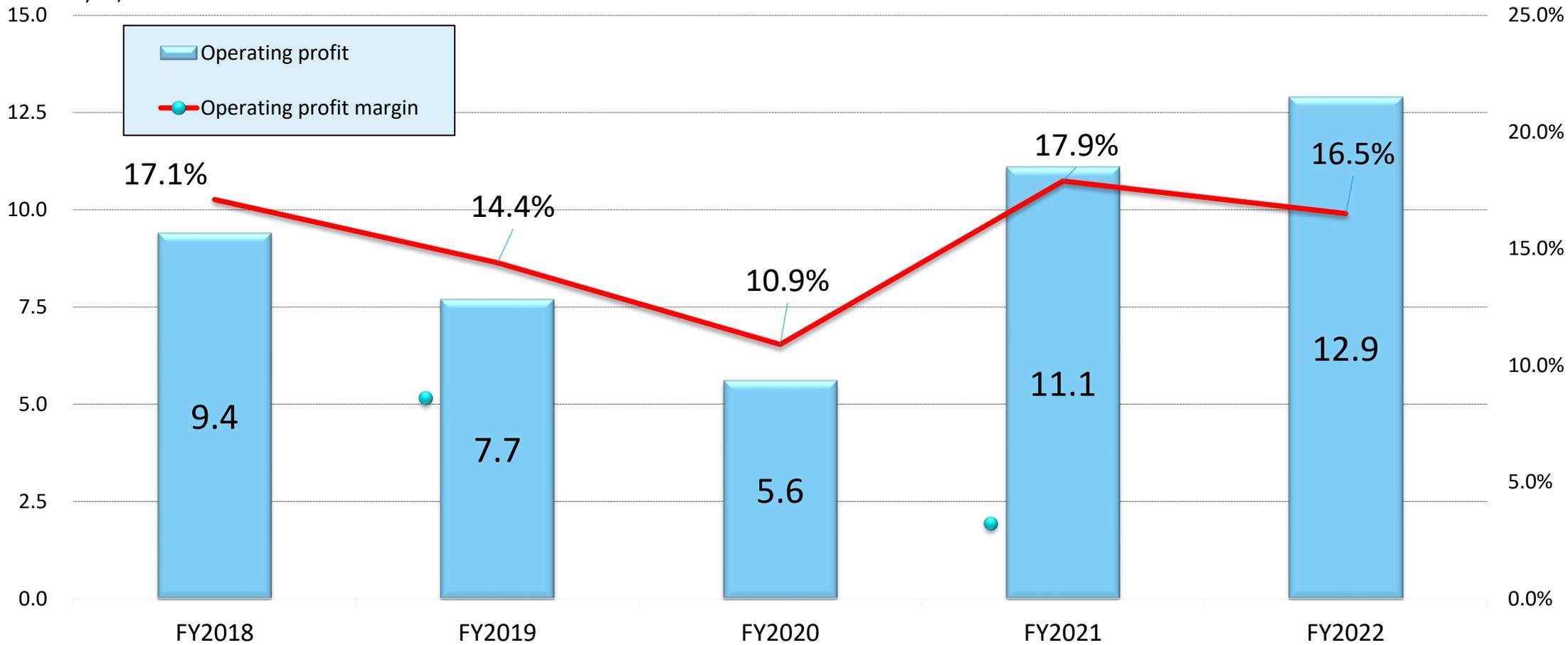
# Consolidated Operating Profit: Difference Analysis

(FY2021 vs. FY2022)



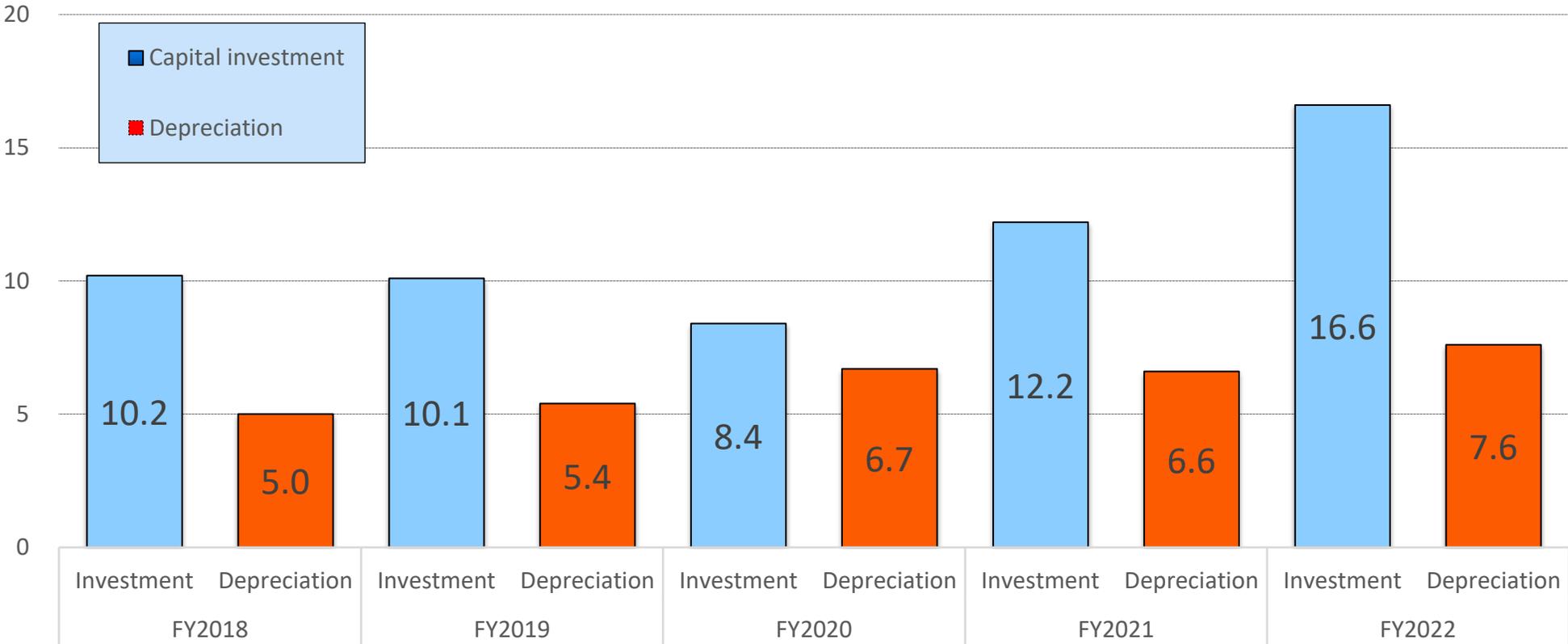
# Operating Profit and Operating Profit Margin Over Time (Consolidated)

(Billions of yen)



# Capital Investment and Depreciation Over Time (Consolidated)

(Billions of yen)



# The Kanto Denka Group (Consolidated Subsidiaries)

(Billions of yen)

	Capital	Share of investment (%)	Net sales: FY2022	Year-on-year change	Major business lines
Kanden Kosan Co., Ltd.	¥10 mil.	100.0	11.3	3.6	Sale of chemical products, maintenance of containers, insurance agency services
Jobi Engineering Co., Ltd.	¥120 mil.	49.4	5.9	1.5	Manufacture, processing, and repair of chemical industry equipment
Kanto Denka Finetech Co., Ltd.	¥27 mil.	100.0	0.6	-0.0	Manufacture and sale of iron oxide
Kanto Denka Korea Co., Ltd.	300 mil. won	100.0	14.9	1.8	Sale of fluorine products
Taiwan Kanto Denka Co., Ltd.	7 mil. NT dollars	100.0	6.9	1.9	Sale of fluorine products
Kanto Denka Fine Products Korea Co., Ltd.	42.0 bil. won	100.0	3.2	0.8	Manufacture and sale of fluorine products
Xuancheng KDK Technology Co., Ltd.	50 mil. dollars	98.3	—	—	Manufacture and sale of fluorine products
		<b>Total</b>	<b>43.1</b>	<b>9.7</b>	

## || Business Outlook and Future Trends

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# Performance Forecast By Segment (Consolidated)

(Billions of yen)

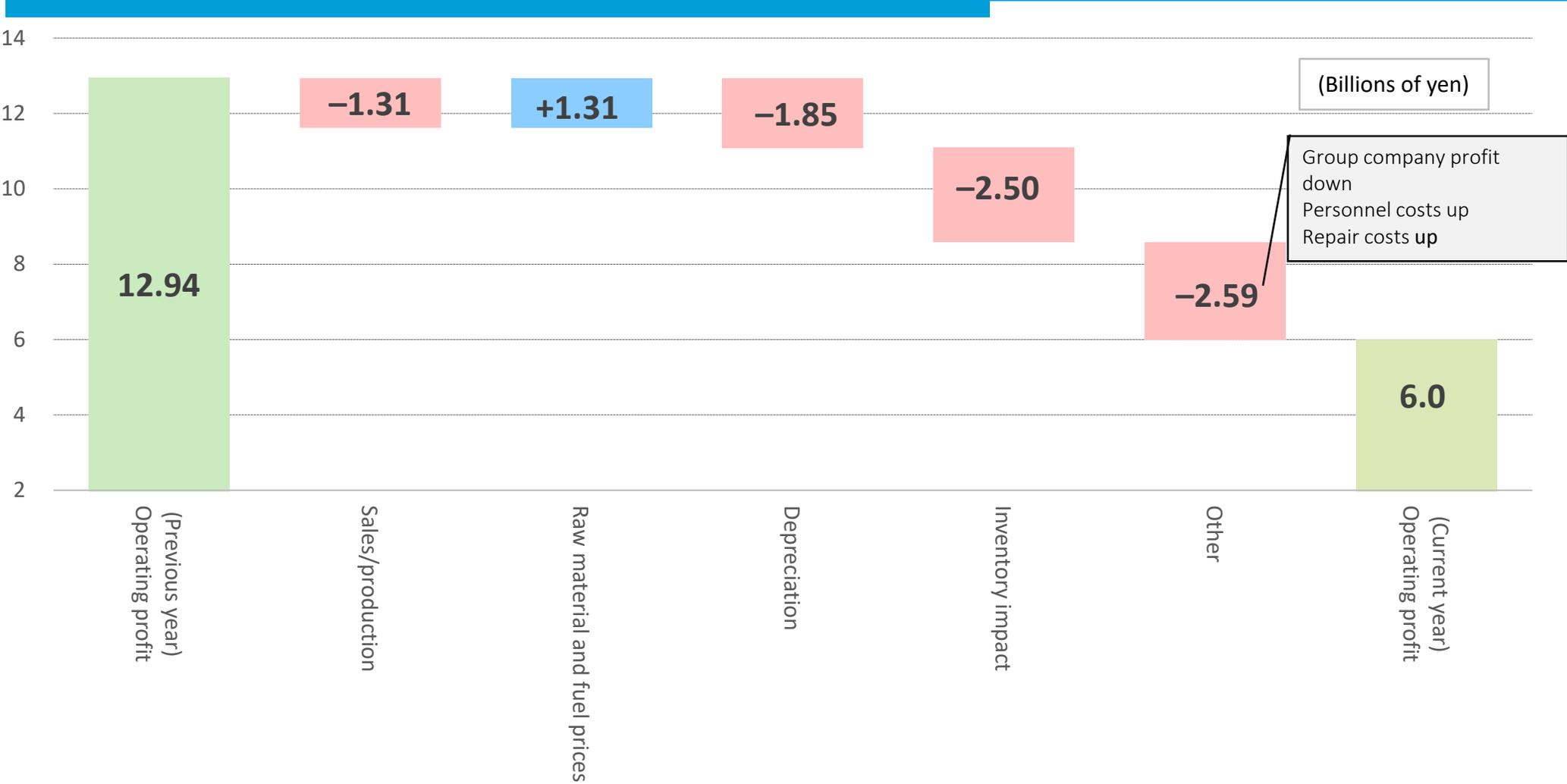
	Net sales			Operating profit		
	FY2022	FY2023	Difference	FY2022	FY2023	Difference
<b>Fundamental Chemicals</b>	9.4	9.7	0.2	0.3	0.3	-0.0
<b>Fine Chemicals</b>	63.9	62.7	-1.2	11.4	4.6	-6.8
<b>Other*</b>	5.3	5.9	0.5	1.1	1.1	-0.0
<b>Total</b>	78.6	78.3	-0.3	12.9	6.0	-6.9
<b>Capital investment</b>	16.6	18.5	1.9			
<b>Depreciation</b>	7.6	9.5	1.8			
<b>R&amp;D expenses</b>	1.1	1.5	0.3			

**Assumption for Performance Forecast**  
**USD/JPY Rate: ¥135**

\* "Other" includes the Ferrochemicals, Commercial Business, Facilities Divisions, and consolidation adjustments.

# Consolidated Operating Profit: Difference Analysis

(FY2022 vs. FY2023)



# Performance Forecast by Segment (Consolidated): H1 Results vs. Forecast

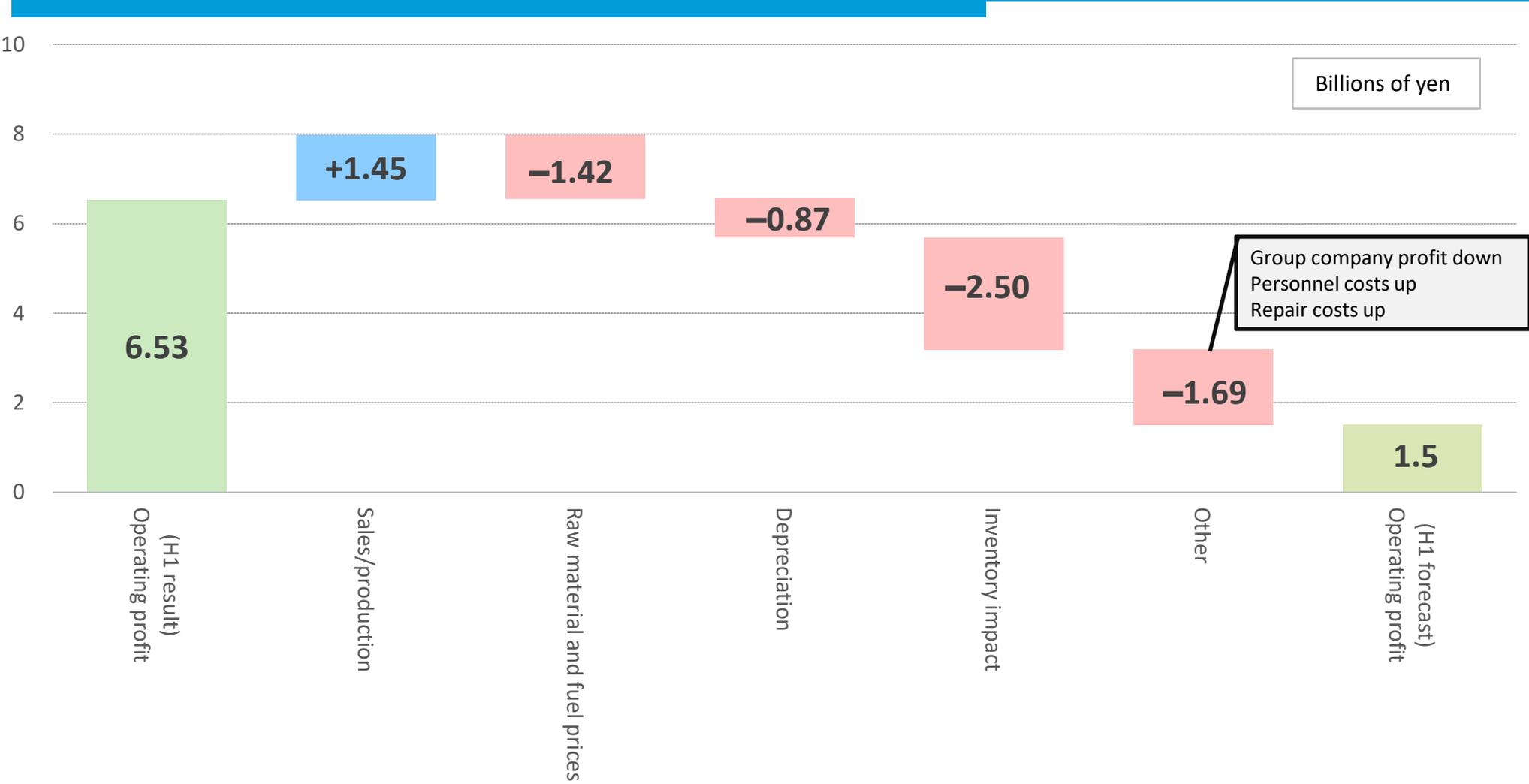
(Billions of yen)

	Net sales			Operating profit		
	H1 (results)	H1 (forecast)	Difference	H1 (results)	H1 (forecast)	Difference
<b>Fundamental Chemicals</b>	4.1	4.5	0.3	0.0	(0.1)	-0.1
<b>Fine Chemicals</b>	30.3	28.9	-1.4	6.0	1.2	-4.8
<b>Other*</b>	2.8	2.9	0.0	0.4	0.4	-0.0
<b>Total</b>	37.3	36.3	-1.0	6.5	1.5	-5.0

\* "Other" includes the Ferrochemicals, Commercial Business, Facilities Divisions, and consolidation adjustments.

# Consolidated Operating Profit: Difference Analysis

(FY2022 H1 vs. FY2023 H1 Forecast)



# Performance Forecast by Segment (Consolidated): H1 vs. H2

(Billions of yen)

	Net sales			Operating profit		
	H1 (forecast)	H2 (forecast)	Difference	H1 (forecast)	H2 (forecast)	Difference
<b>Fundamental Chemicals</b>	4.5	5.2	0.7	(0.1)	0.4	0.5
<b>Fine Chemicals</b>	28.9	33.8	4.9	1.2	3.4	2.2
<b>Other*</b>	2.9	3.0	0.1	0.4	0.7	0.3
<b>Total</b>	36.3	42.0	5.7	1.5	4.5	3.0
<b>Capital investment</b>	8.6	9.9	1.3			
<b>Depreciation</b>	4.2	5.3	1.1			
<b>R&amp;D expenses</b>	0.7	0.8	0.1			

\* "Other" includes the Ferrochemicals, Commercial Business, Facilities Divisions, and consolidation adjustments.

# Topics (Status of Major Capital Investments)

Investment	Details	Remarks
Hexafluoro-1,3-butadiene (C <sub>4</sub> F <sub>6</sub> )	400t/yr ⇒ 600t/yr	<ul style="list-style-type: none"> <li>• April 2022 (400t/yr)</li> <li>• End of 2023 plan (600t/yr)</li> </ul>
Carbonyl sulfide (COS)	150t/yr ⇒ 200t/yr	<ul style="list-style-type: none"> <li>• June 2022 (150t/yr)</li> <li>• Fall 2024 plan (200t/yr)</li> </ul> Phase III construction at Xuancheng
Lithium hexafluorophosphate (LiPF <sub>6</sub> )	5,400t/yr ⇒ 10,000t/yr	<ul style="list-style-type: none"> <li>• Scheduled for completion around fall 2023</li> </ul>
New etching gas (KSG-14)	150t/yr	<ul style="list-style-type: none"> <li>• Scheduled for completion in March 2024</li> </ul>
Xuancheng KDK Technology Co., Ltd.	Phase I construction: Ammonium fluoride Phase II construction: WF <sub>6</sub> , C <sub>4</sub> F <sub>6</sub> , CF <sub>4</sub> Phase III construction (COS, pending)	<ul style="list-style-type: none"> <li>• Phase I construction: Facilities were completed in March 2023 and test operations are currently underway.</li> <li>• Phase II construction: Scheduled for completion by the end of 2023</li> <li>• Phase III construction: Scheduled for fall 2024</li> </ul>

# Topics (Concluded LiPF<sub>6</sub> License Agreement)

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Kanto Denka announced on February 2, 2023 that it had signed a production technology licensing agreement with Mexichem Fluor Inc. ("Mexichem") for lithium hexafluorophosphate (LiPF<sub>6</sub>), a key raw material in lithium-ion battery electrolytes.

## Outline of agreement

Kanto Denka will license its production technology to Mexichem for use in its new manufacturing facility for LiPF<sub>6</sub>, a first in the United States, being built on its existing plant in the state of Louisiana. Under this agreement, Kanto Denka will receive technical support fees and royalties in accordance with the progress of technical support (specific amounts are undisclosed as per the agreement).

## About Mexichem

Mexichem is the core company of Koura, which operates the fluorine business of the multinational Orbia Group. It owns a vertically integrated fluorine supply chain in North America and sells fluorine-based products for various applications worldwide.

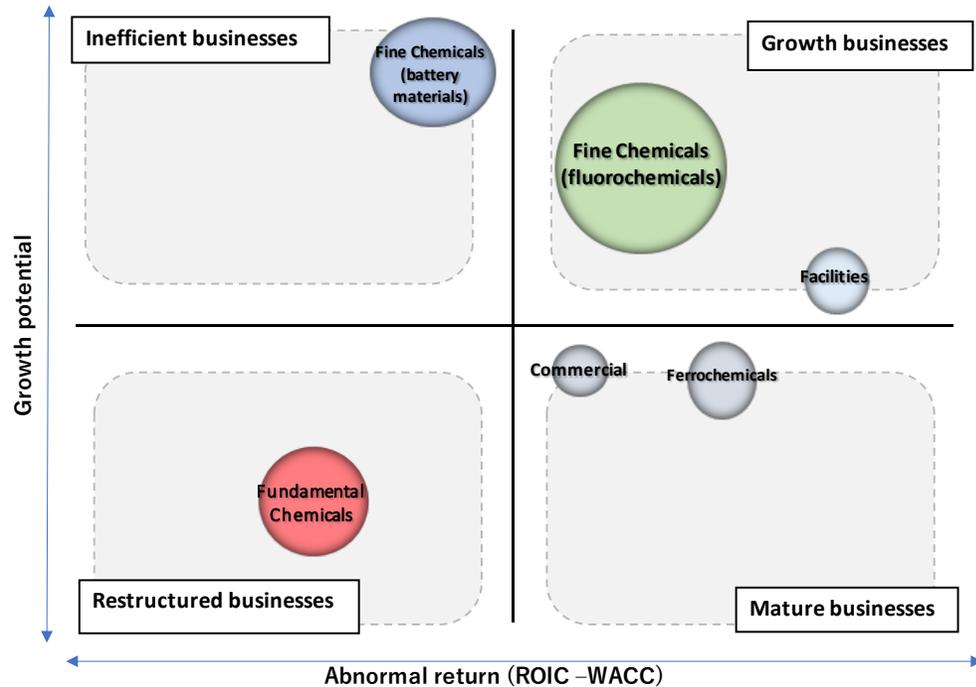
## Other

By entering into this agreement, Kanto Denka aims to establish a robust LiPF<sub>6</sub> supply system in North America, which will contribute to the development of the battery value chain.

# Measures to Increase Corporate Value Considering Capital Costs

## Management leveraging ROIC

Kanto Denka will strive to comprehend the positioning of each business segment and implement appropriate measures accordingly.



### [Direction of Each Segment]

#### Fine Chemicals (fluorochemicals)

Further expand business through aggressive growth investments to drive overall Group growth

#### Fine Chemicals (battery materials)

Expand business through growth investments and enhance profitability through technical tie-ups and other alliances

#### Ferrochemicals

Improve business efficiency to generate higher returns

#### Facilities and Commercial

Streamline operations and support the growth of key segments

#### Fundamental Chemicals

Consider business restructuring, including structural reform, while fulfilling its role in raw material supply

## Establishment of Public Relations & Investor Relations Department and Human Resource Development Department

These departments will be launched on June 29, 2023 with the aim of strengthening investor relations activities and investment in human capital.

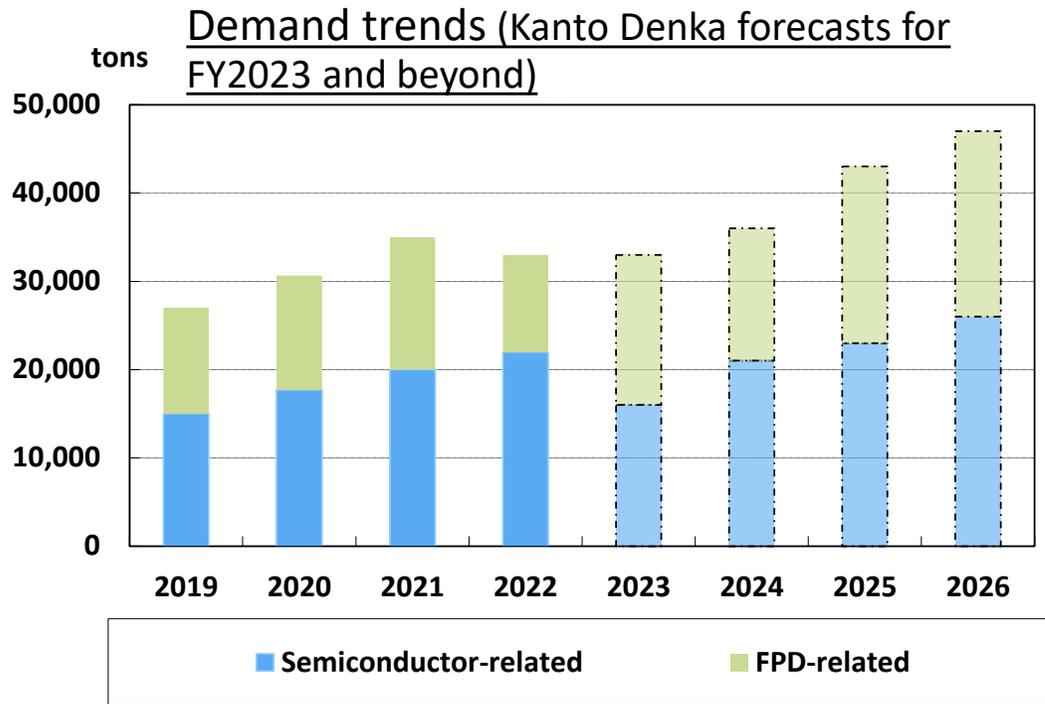
Note: Specific details will be announced as soon as they are finalized.

## III | Supplementary Materials

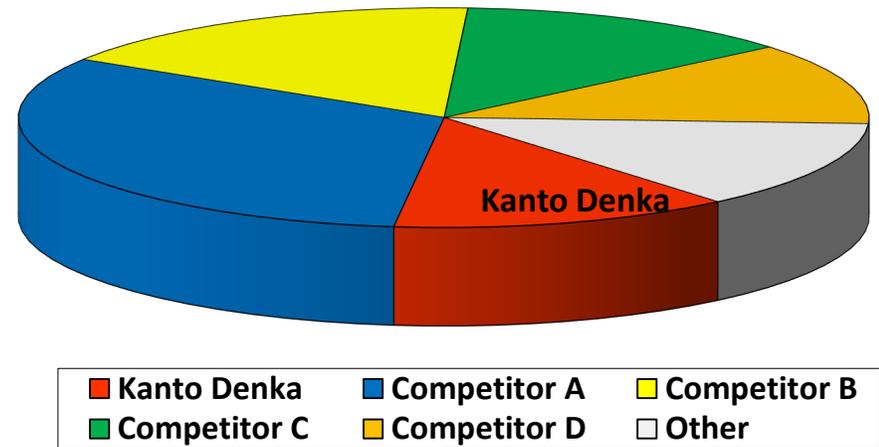
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# – Outlook for Major Products – Nitrogen Trifluoride (NF<sub>3</sub>)

- Chamber cleaning gas for plasma CVD equipment for semiconductor and FPD manufacturing
- Production capacity: 3,700t/year

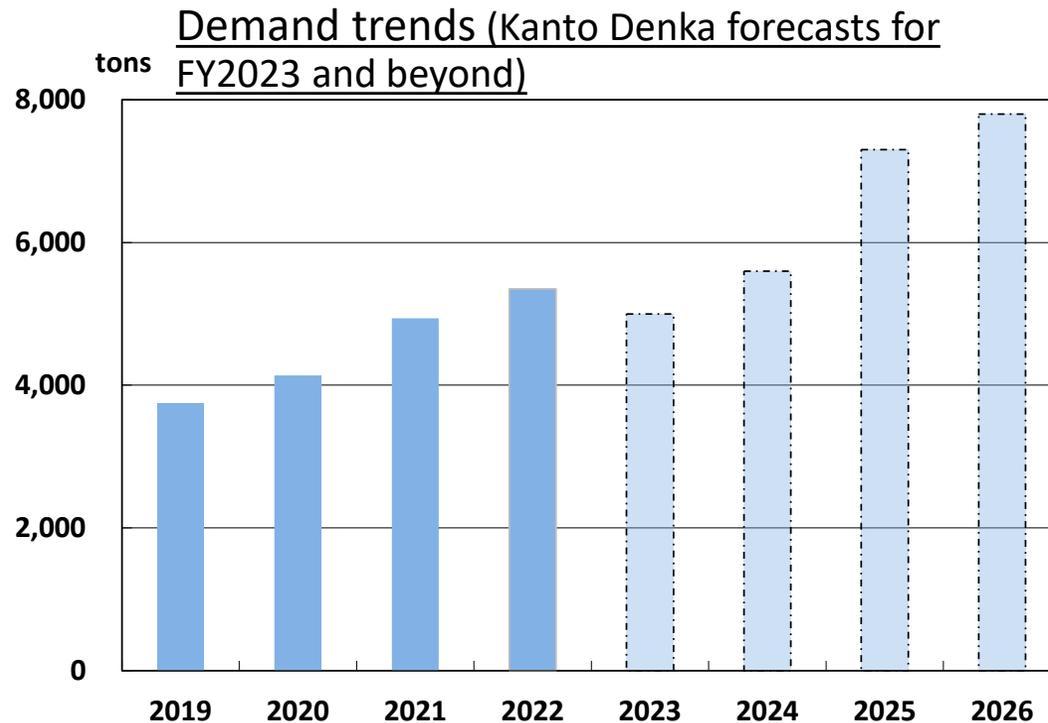


- Forecasted market share
- Kanto Denka holds over 10% of market share
  - Kanto Denka holds around a 20% share in the market for leading semiconductor manufacturers

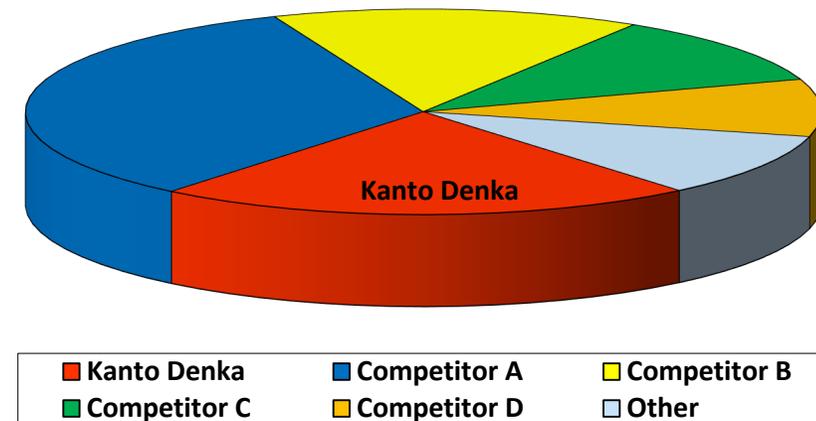


# — Outlook for Major Products — Tungsten Hexafluoride (WF<sub>6</sub>)

- Wiring material gas for semiconductors
- Production capacity: 720t/year (Nov. 2016) → 910t/year (Aug. 2018) → 1,400t/year (Oct. 2019)

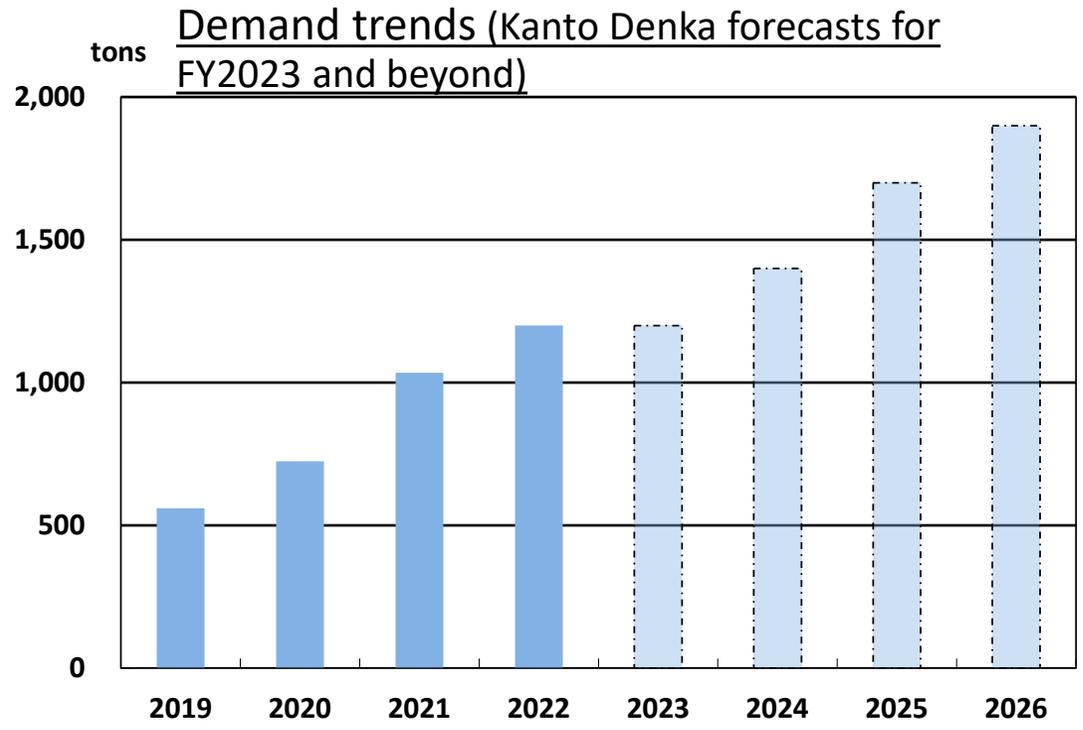


- Forecasted market share
- Kanto Denka holds nearly 30% of market share

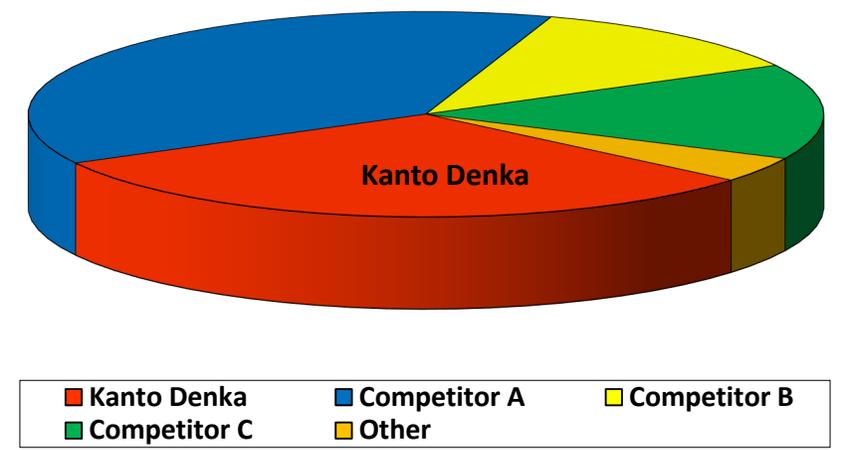


# — Outlook for Major Products — Hexafluoro-1,3-butadiene (C<sub>4</sub>F<sub>6</sub>)

- Etching gas for semiconductors
- Production capacity: 260t/year (Dec. 2019) → 400t/year (Apr. 2022) → 600t/year (Planned for the end of 2023)

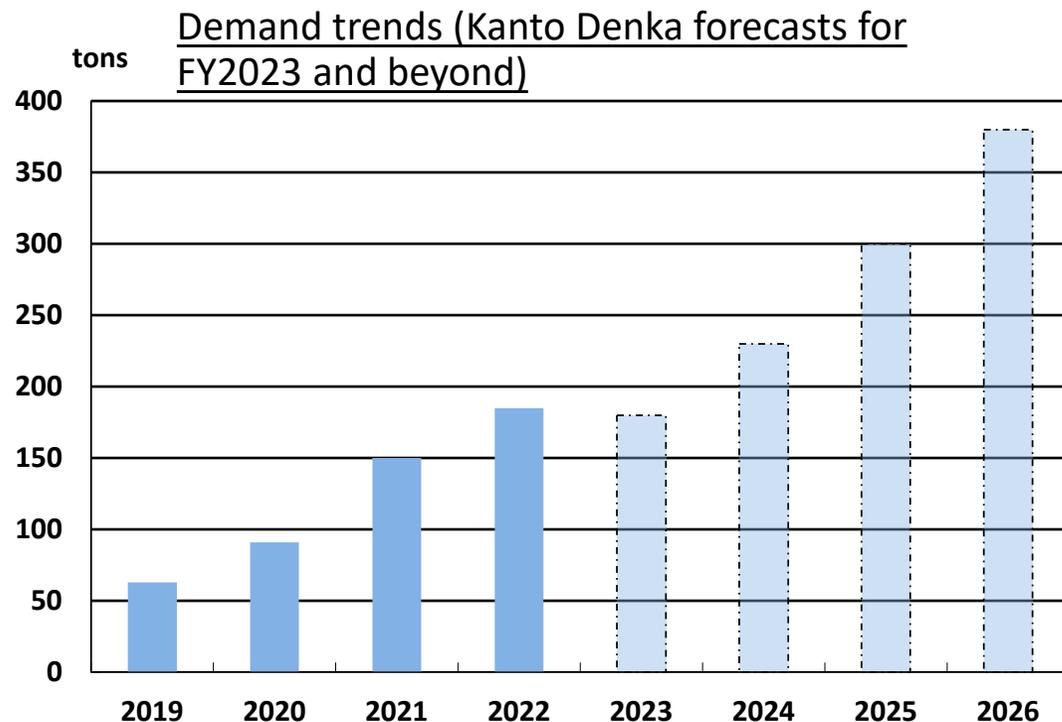


- Forecasted market share
- Kanto Denka holds around 30% of market share
  - Increasing demand alongside progress in the multilayering of 3D-NAND



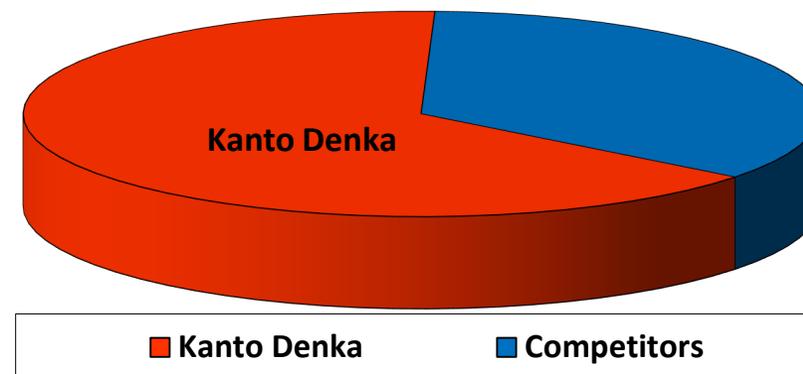
# — Outlook for Major Products — Carbonyl Sulfide (COS)

- Etching gas for semiconductors
- Production capacity: 80t/year (Oct. 2019) → 150t/year (June 2022) → 200t/year (Planned for fall 2024)



## Forecasted market share

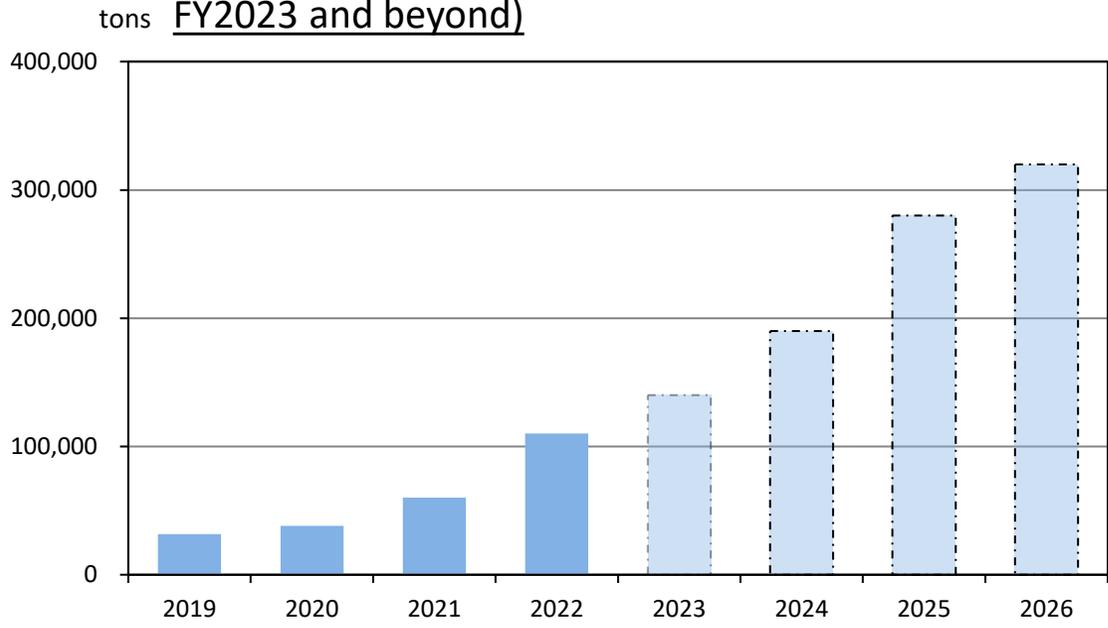
- Kanto Denka holds 60% or more of market share
- Increasing demand alongside progress in the multilayering of 3D-NAND



# — Outlook for Major Products — Lithium Hexafluorophosphate (LiPF<sub>6</sub>)

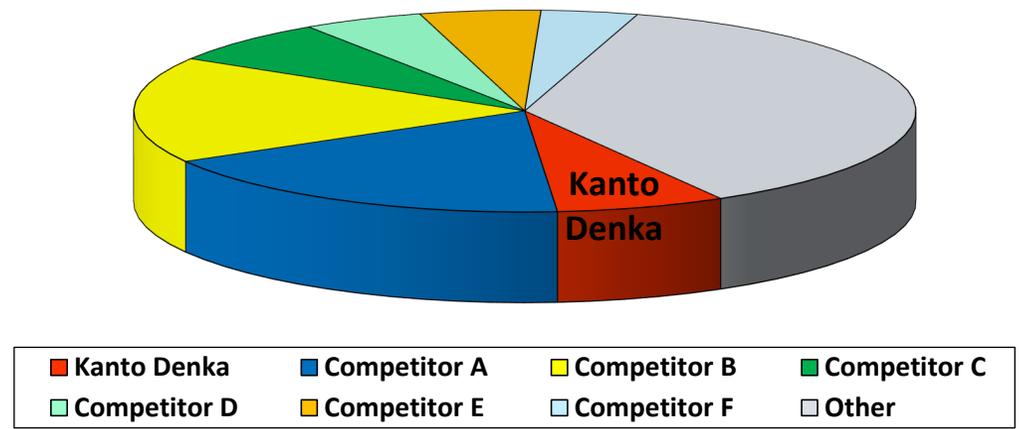
- Electrolyte materials for lithium-ion secondary batteries
- Demand reaches full-scale pace for EVs and other in-vehicle applications
- Production capacity: 5,400t/year → 10,000t/year (Planned for fall 2023)

Demand trends (Kanto Denka forecasts for FY2023 and beyond)



Forecasted market share

In the automotive battery market, Kanto Denka commands 70% share in Japan, 40% in the United States and 10% in Europe. It is essential to have **high-quality LiPF<sub>6</sub>** amid tough requirements for automotive application in terms of battery properties and safety, etc.



# — Overseas Production Sites — Kanto Denka Fine Products Korea Co., Ltd.

## □ Location

Cheonan City, South Chungcheong Province, Republic of Korea

## □ Business Lines

Manufacture and sale of fluorochemicals for semiconductors

## □ Production Items

- Carbonyl sulfide (COS)
- Carbon tetrafluoride (CF<sub>4</sub>)
- Chlorine trifluoride (ClF<sub>3</sub>)



# — Overseas Production Sites — Xuancheng KDK Technology Co., Ltd.

## □ Location

Xuancheng City, Anhui Province, People's Republic of China

## □ Business Lines

Manufacture and sale of fluorochemicals for semiconductors

## □ Production Items

Phase I construction: Ammonium fluoride

Phase II construction:

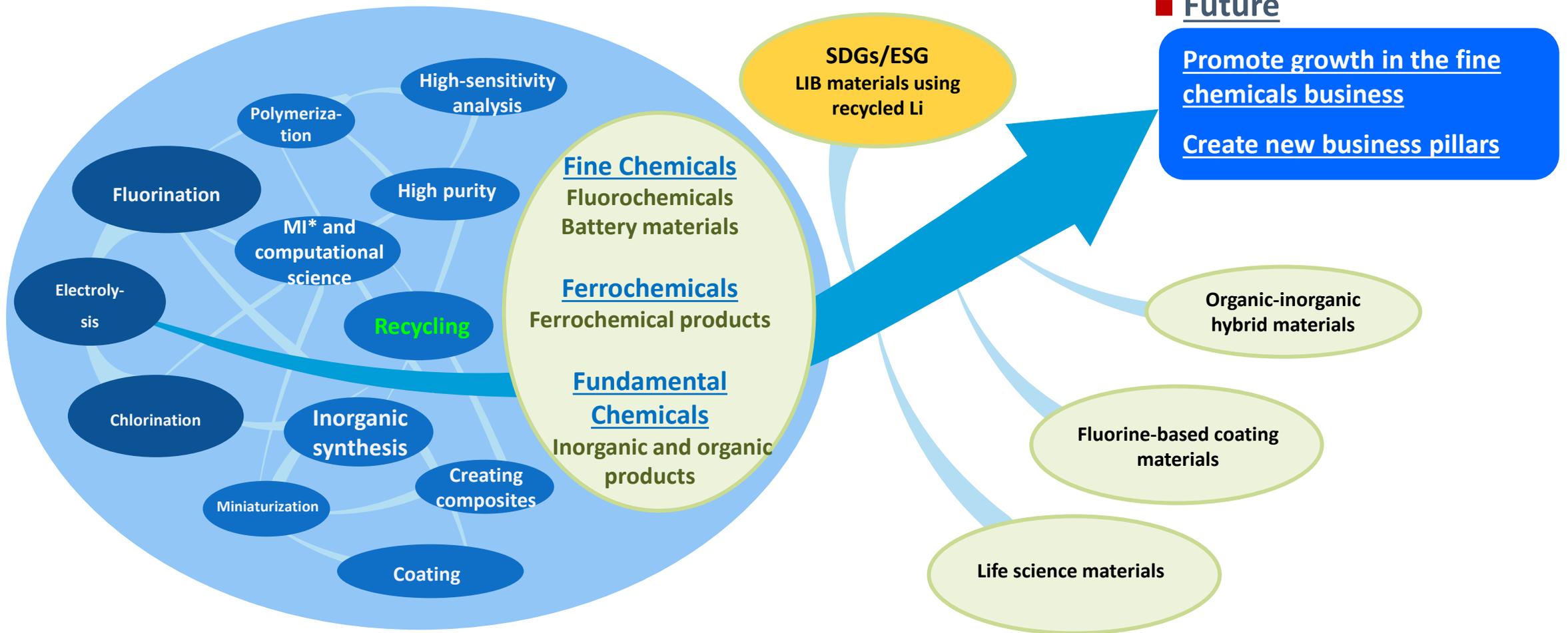
- Tungsten hexafluoride ( $WF_6$ )
- Carbon tetrafluoride ( $CF_4$ )
- Hexafluoro-1,3-butadiene ( $C_4F_6$ )

Phase III construction (pending)

- Carbonyl sulfide (COS)



# Kanto Denka's Technology and Business Direction



■ **KDK-Core Technology**

\* MI: Material informatics

# Business Segments

Name		Products and services
<b>Fundamental Chemicals</b>	<b>Inorganic products</b>	Caustic soda, hydrochloric acid, sodium hypochlorite, aluminum chloride, etc.
	<b>Organic products</b>	Trichloroethylene, perchloroethylene, vinylidene chloride, cyclohexanol, etc.
<b>Fine Chemicals</b>	<b>Fluorochemicals</b>	Sulfur hexafluoride, carbon tetrafluoride, trifluoromethane, hexafluoroethane, nitrogen trifluoride, hexafluoro-1,3-butadiene, octafluoropropane, tungsten hexafluoride, silicon tetrafluoride, chlorine trifluoride, octafluorocyclobutane, monofluoromethane, carbonyl sulfide, iodine pentafluoride, KSG-14, etc.
	<b>Battery materials</b>	Lithium hexafluorophosphate, lithium tetrafluoroborate, etc.
<b>Ferrochemicals</b>	<b>Ferrochemical products</b>	Carriers, magnetite, pigments, iron oxide, etc.
<b>Commercial Business</b>	<b>Kanden Kosan Co., Ltd.</b>	Sale of chemical products, maintenance of containers, insurance agency services, etc.
<b>Facilities</b>	<b>Jobi Engineering Co., Ltd.</b>	Factory plant construction, plant facility maintenance work, etc.

# Notes

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- Performance forecasts in this document were created based on information available as of the date of this document's publishing, and actual results may differ versus forecasted figures due to a variety of factors arising in the future.