

# **Business Plan and Matters Related to Growth Potential**

**OXIDE Corporation  
(6521, TSE Growth)  
April 2024**

**1.**  
**Company information**

**2.**  
**FY Feb 2024  
: Highlights**  
  
**FY Feb 2025  
: Areas of focus**

**3.**  
**Overview of Business**  
  
Semiconductor Business  
Healthcare Business  
Frontier Technology Business

**4.**  
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**5.**  
**Financial and  
risk information**

## **1 - Company information**

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FY Feb 2024 : Highlights

FY Feb 2025 : Areas of focus

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A small prefab shed in Kobuchisawacho, Yamanashi prefecture.  
That was the place where Oxide started.

**Company profile (as of February 29, 2024)**

<p><b>Established</b></p>	<p><b>Head office location</b></p>	<p><b>Number of employees</b></p>	<p><b>Capital</b></p>	<p><b>Major corporate shareholders</b></p>
<p><b>October 2000</b></p>	<p><b>1747-1 Maginohara, Mukawa, Hokuto, Yamanashi</b></p>	<p><b>395 people</b> <sup>(1)</sup>          Doctor 11% <sup>(2)</sup>          MBA and Master 14% <sup>(2)</sup></p>	<p><b>3,177</b>  <b>Millions of yen</b></p>	<p><b>KLA</b>  <b>NTT-AT</b>  <b>Nikon</b>  <b>Laserstec</b></p>
<p><b>Net sales</b> <sup>(3)</sup></p>	<p><b>Revenue overseas ratio</b> <sup>(3)</sup></p>	<p><b>R&amp;D expenses revenue ratio</b> <sup>(3) (4)</sup></p>	<p><b>CAPEX</b><sup>(3)</sup></p>	<p><b>Profit/equity ratio</b> <sup>(3)</sup></p>
<p><b>6,606</b>  <b>Millions of yen</b></p>	<p><b>80%</b>  <b>or more</b></p>	<p><b>16%</b></p>	<p><b>2,035</b>  <b>Millions of yen</b></p>	<p><b>40%</b></p>

(1) Consolidated Number of Employees

(3) Results for FY Feb 2024

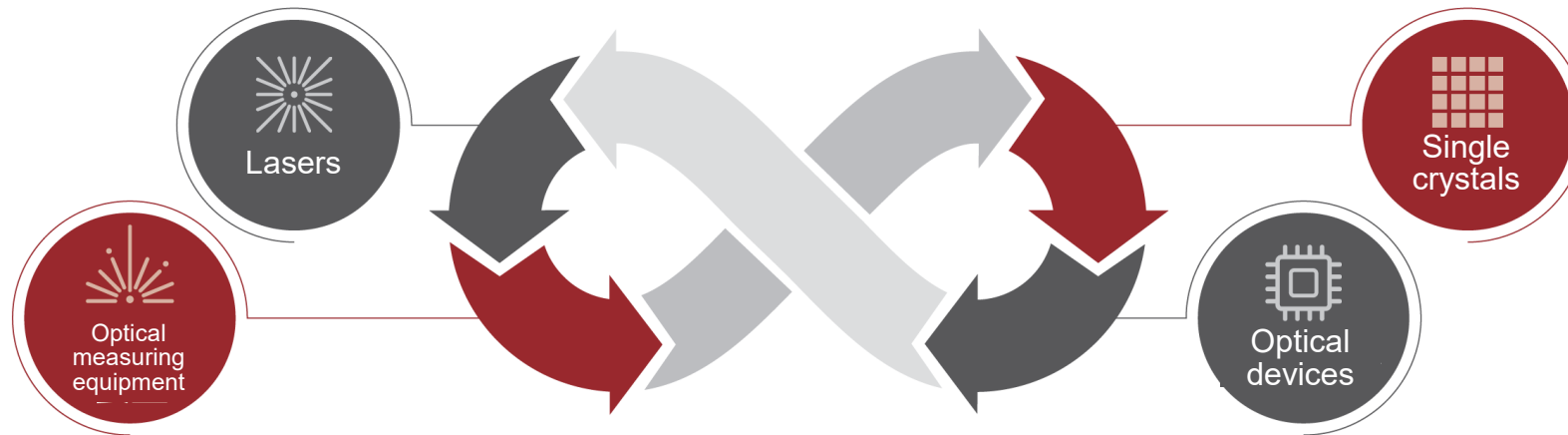
(2) Ratio to Number of Employees (Non-consolidated)

(4) Research and development expenses were 1,049 million yen.

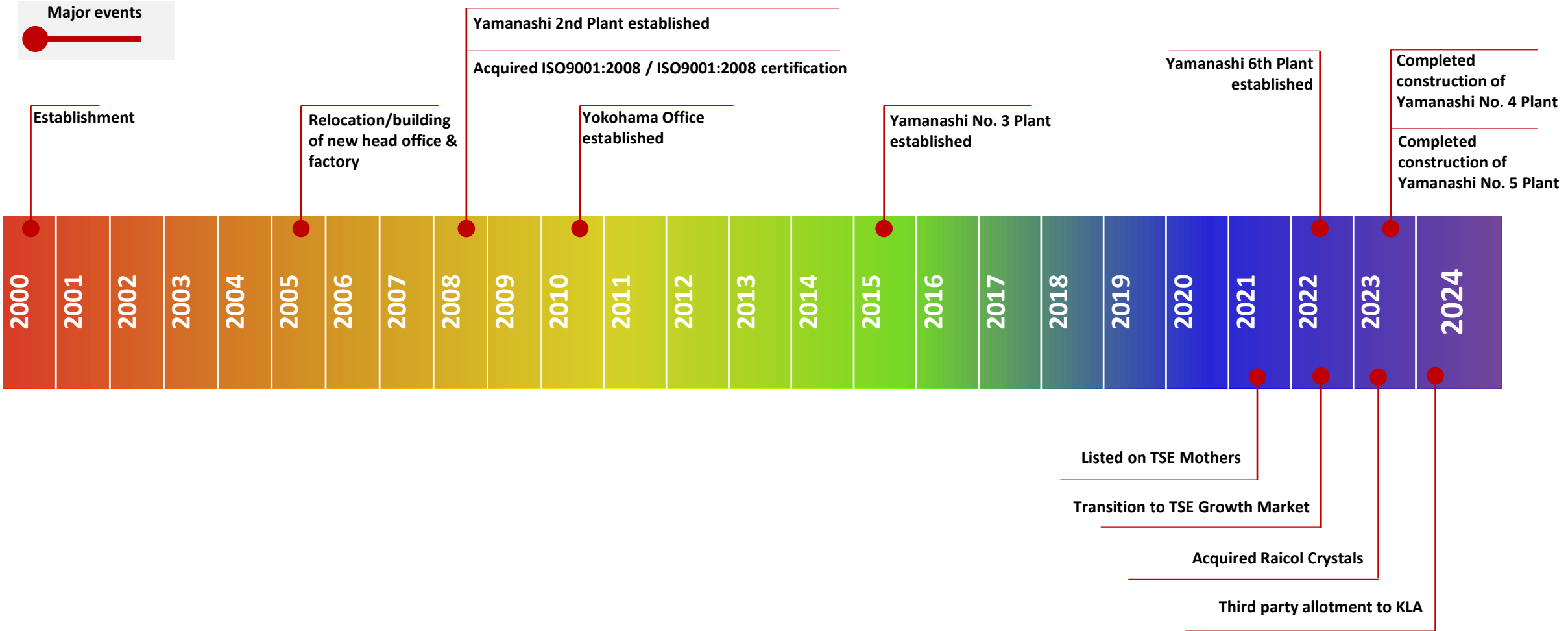
## Management philosophy

### Be a global-niche-top company in **Single crystals and Lasers**

- Use the results of our research to benefit society, and provide **key materials** to the world
- Provide **material solutions** to customers and contribute to the development of society
- Develop products centered on Single crystals, and continue to create **future market opportunities**



# Company history



# Management team as of May 30, 2024 <sup>(1)</sup>



**Chairman (CEO)**  
**Yasunori Furukawa**  
Doctor of Engineering

**Founded the Company in October 2000**  
**(Main career)**  
**National Institute for Materials Science**



**Executive Vice President (CTO)**  
**Kazuo Fujiura**  
Doctor of Engineering  
  
(Main career)  
Nippon Telegraph and Telephone Corporation



**Director (CTO)**  
**Hiroyuki Ishibashi**  
Doctor of Science  
  
(Main career)  
Hitachi Chemical Co., Ltd.



**Director (CSO)**  
**Seiji Uchida**  
  
(Main career)  
Citigroup



**President (COO & CFO)**  
**Masayuki Yamamoto**

**(Main career)**  
**The Shoko Chukin Bank, Ltd.**

**External Director**  
**Jiro Nakamura**

**External Director**  
**Emi Tamechika**

**External Director**  
**Gareth C.W. Jones**

**Audit & Supervisory Board Member (Full-time)**  
**Takashi Yoshida**

**Audit & Supervisory Board Member**  
**Yoshihito Kosaka**

**Audit & Supervisory Board Member**  
**Yoshiyuki Tanaka**

(1) Disclosed on April 15, 2024. To be officially decided after the 24th Ordinary General Meeting of Shareholders and the Board of Directors scheduled for May 30, 2024.

# Overview of Business

■ Aiming to be the global-niche-top company for Single crystals and Lasers.

In addition to Semiconductor and Healthcare, we are developing businesses in various markets.

Single crystals



Lasers



## Semiconductor Business

Manufacturing Single crystals and Lasers for Semiconductor Si Wafer Defect Inspection System



## Healthcare Business

Manufacturing Single crystals for PET scanners



## Frontier Technology Business

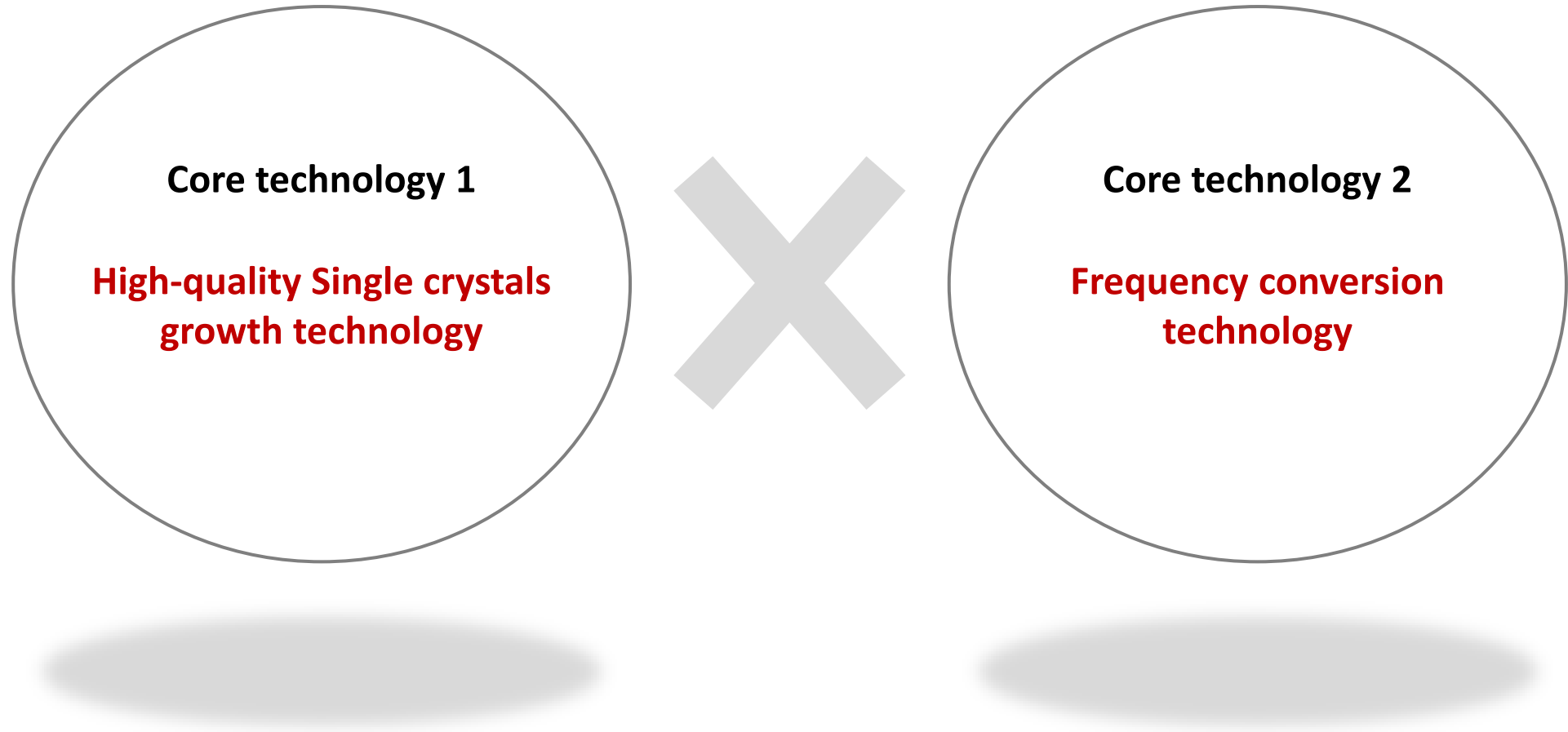
Business development in various fields, such as Quantum, Power Semiconductor, Aerospace & Defense, Energy, and Medical aesthetics





















# OXIDE Core technologies

■ ■ Our core technologies are high-quality Single crystals growth technology and frequency conversion technology.



# Core technology① High-quality Single crystals growth technology

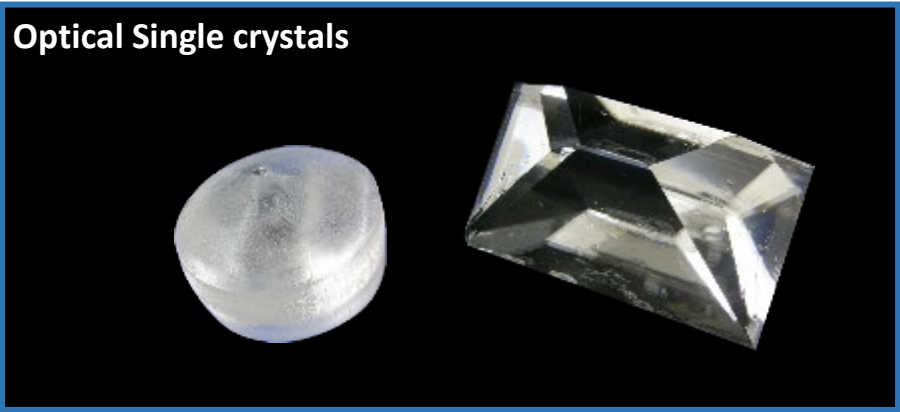
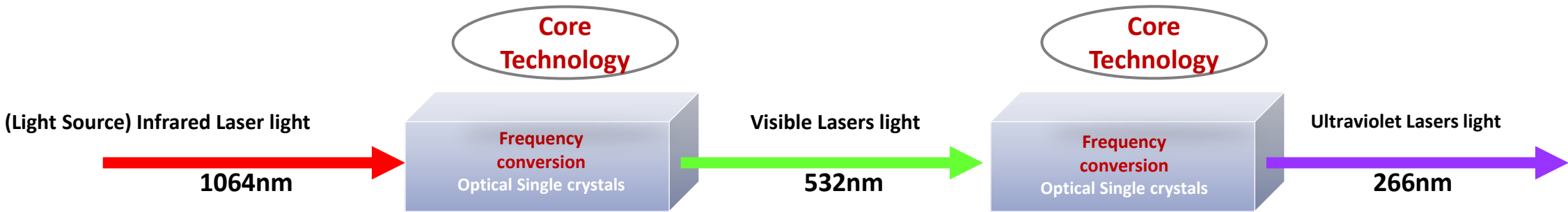
■ Since its establishment, OXIDE has adopted a variety of growth technologies. The combination of various growth equipment and know-how in the formulation of raw materials and growth conditions realizes the creation of new materials and the improvement of quality.

Growth Method	CZ method	FZ method	TSSG method	VB Method	DCCZ method
Equipment					
Crystals	 LGSO  TGG  GPS	 YIG  Nd:YVO4	 CLBO  KTN	 LB4  EPOCH	 Mg:SLT  MgSN

# Core technology ② Frequency conversion technology

- Frequency conversion is a technology that changes the wavelength of light.
- Our deep ultraviolet Lasers achieve the world's highest output power and long lifetime based on our optical Single crystals manufacturing and processing technology, as well as our knowledge and technology in the use of Single crystals.

Example of frequency conversion to create wavelength of 266 nm



# Products that use Single crystals growth technology and frequency conversion technology

- Combining these two core technologies, OXIDE develops, manufactures, and sells products for a wide range of wavelength.
- These products are used in various application fields.

Gamma radiation

Deep UV

Ultraviolet

Visible light

Infrared

Single crystals



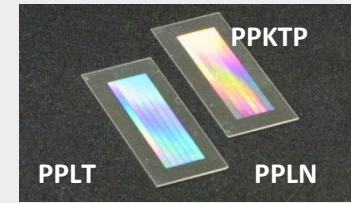
LGSO



BBO

CLBO

LBO



PPLT

PPLN

PPKTP



KTP

RTP

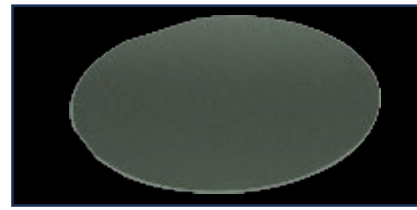
Examples of application fields



Healthcare



Semiconductor inspection



Power Semiconductor



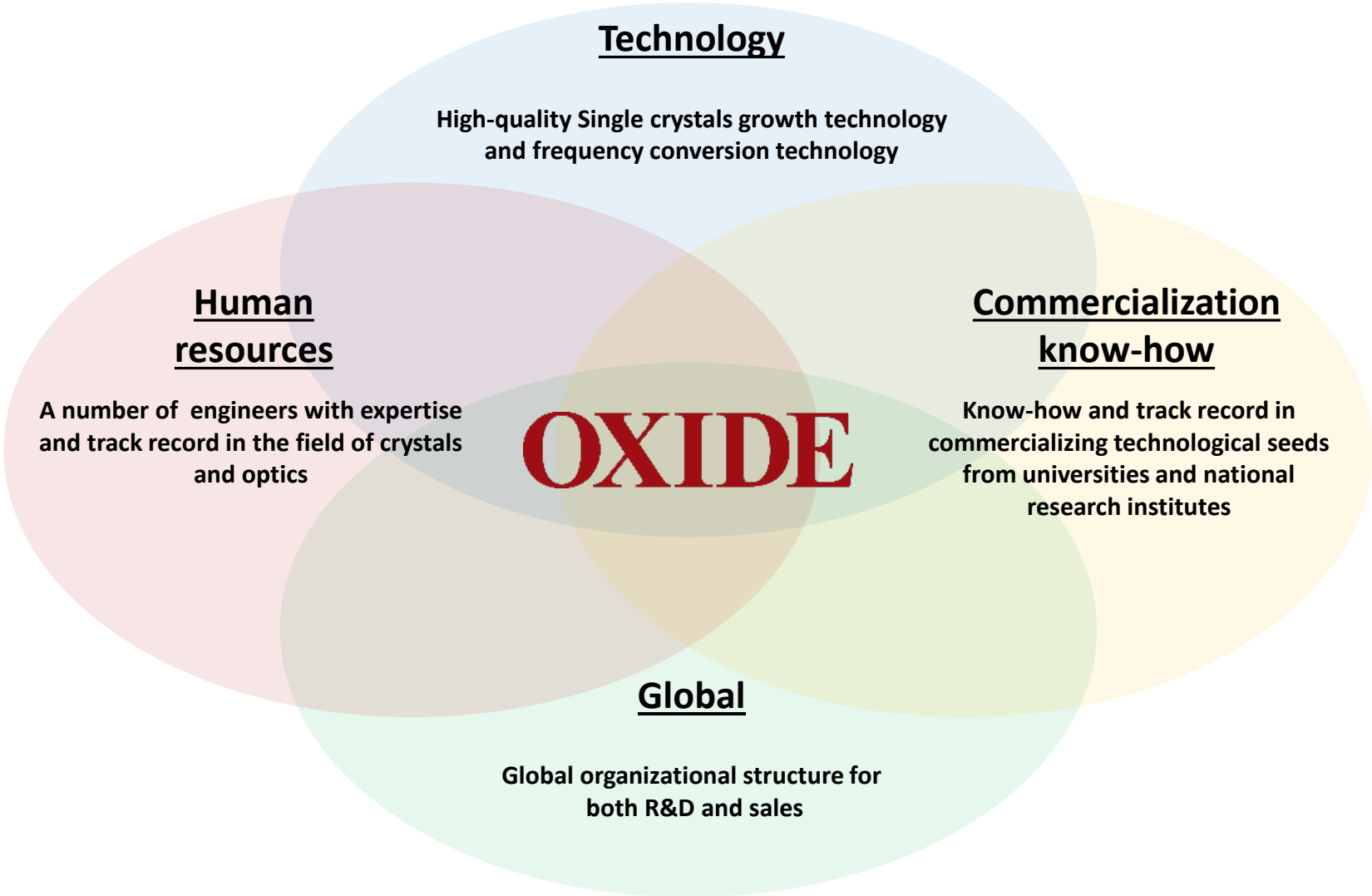
Next-generation lighting



Quantum technology

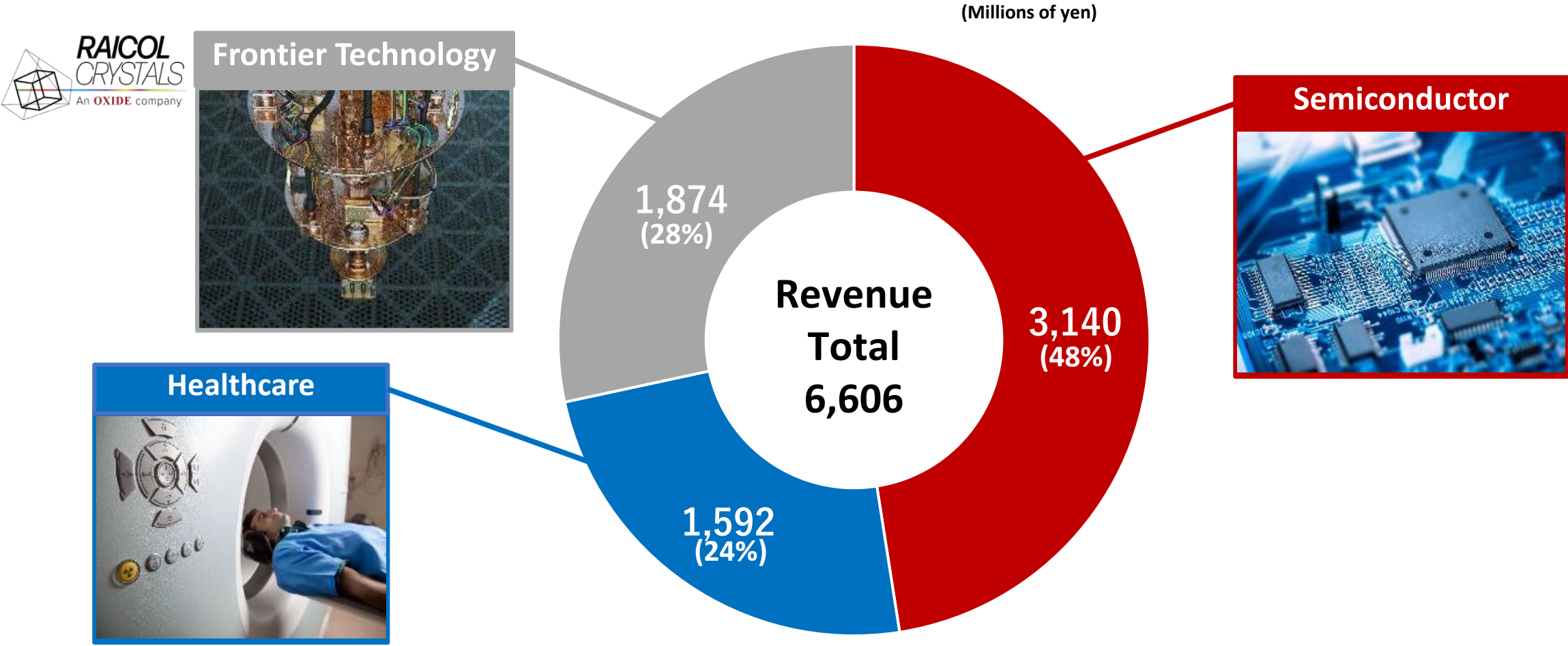
# Competitive Advantages of OXIDE

■ Our competitive advantages are based on four factors: Technology, Human resources, Commercialization knowhow, and Global.



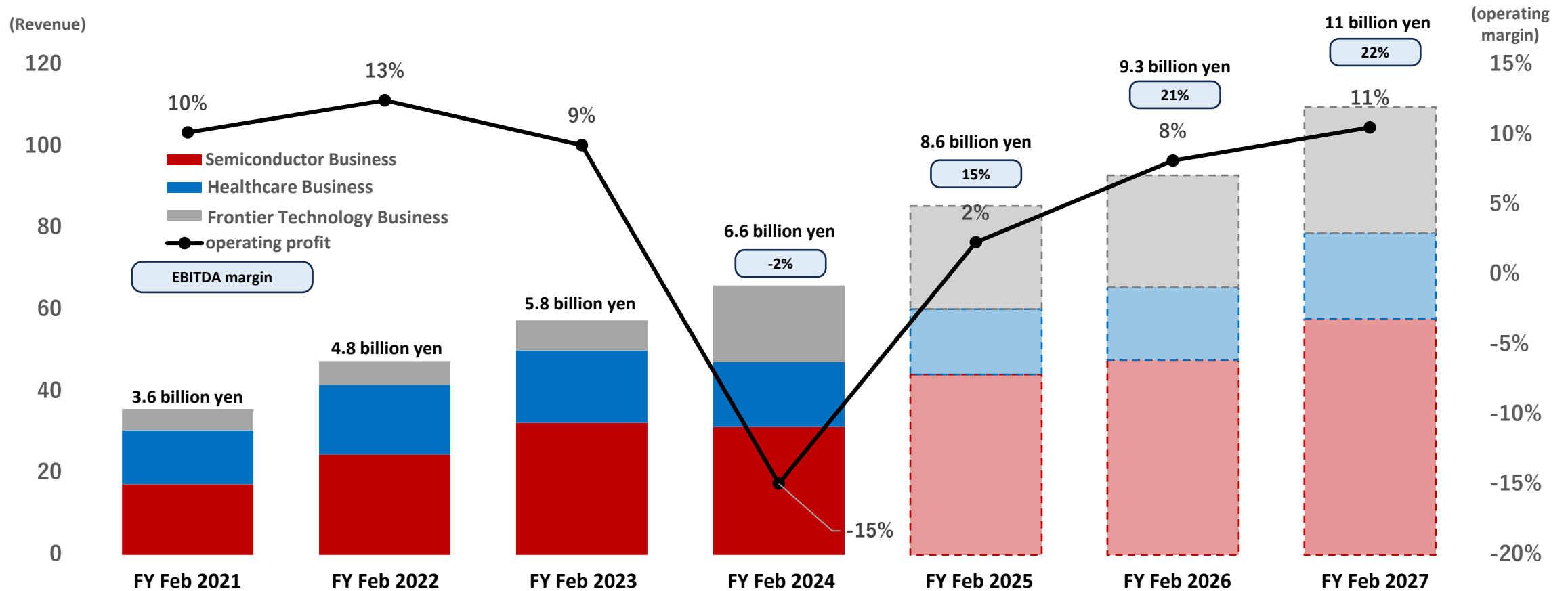
# Breakdown of revenue by business : FY Feb 2024

- The Semiconductor business is the main driver of overall revenue.
- The acquisition of Raicol has increased the proportion of Frontier Technology in the total portfolio.



# Mid-term management objectives(FY Feb 2025 to FY Feb 2027)

- For the FY Feb 2027, we expect revenue of approximately 11 billion yen, an operating margin of 11%, and an EBITDA margin of 22%.
- Our initiatives will focus on contributing to revenue and operating profit through a V-shaped recovery in the semiconductor business, accelerating R&D in the quantum field and other fields, and accelerating the development of mass production of SiC.



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# FY Feb 2024 : Highlights

## Semiconductor

- Started shipping Lasers with second vendor component in January 2024
- Completed construction of No. 4 Plant to meet future production increases

## Healthcare

- Started sales of Single crystals scintillators for Brain PET scanners

## Frontier Technology

- Steady progress on PMI following completion of Raicol acquisition
- In the SiC business, the development of ultra-low defect SiC substrates is progressing using NEDO project

## Corporate

- Conducted third party allotment to KLA to strengthen financial base

## FY Feb 2025 : Areas of Focus

### Semiconductor

- V-shaped recovery in revenue and profit and strengthening of supply chains

### Healthcare

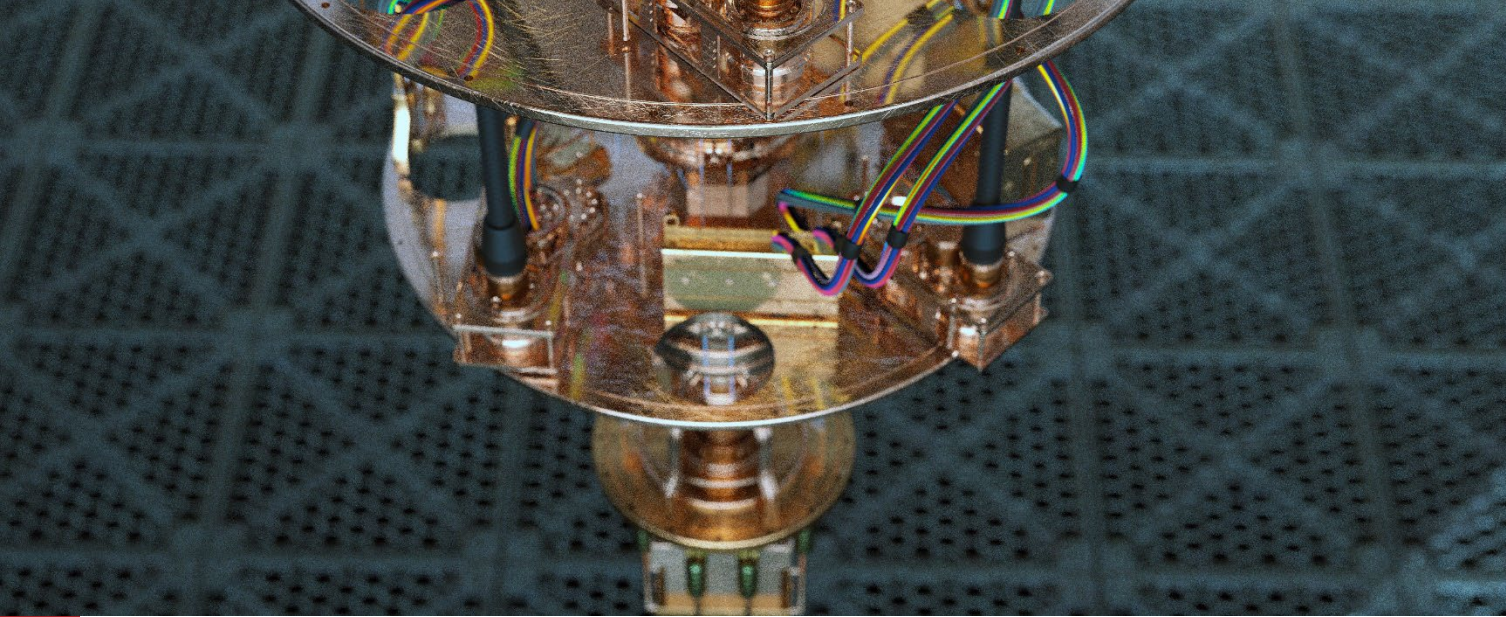
- Develop new customers at both Cancer diagnosis PET scanners and Brain PET scanners

### Frontier Technology

- Expand Cross-selling with Raicol and accelerating joint R&D projects including quantum
- Accelerate development of Power Semiconductor through establishment of subsidiary

### Corporate

- Operating profit returned to the black for current term
- Continue to invest in R&D and CAPEX to grow the business from the next term onwards

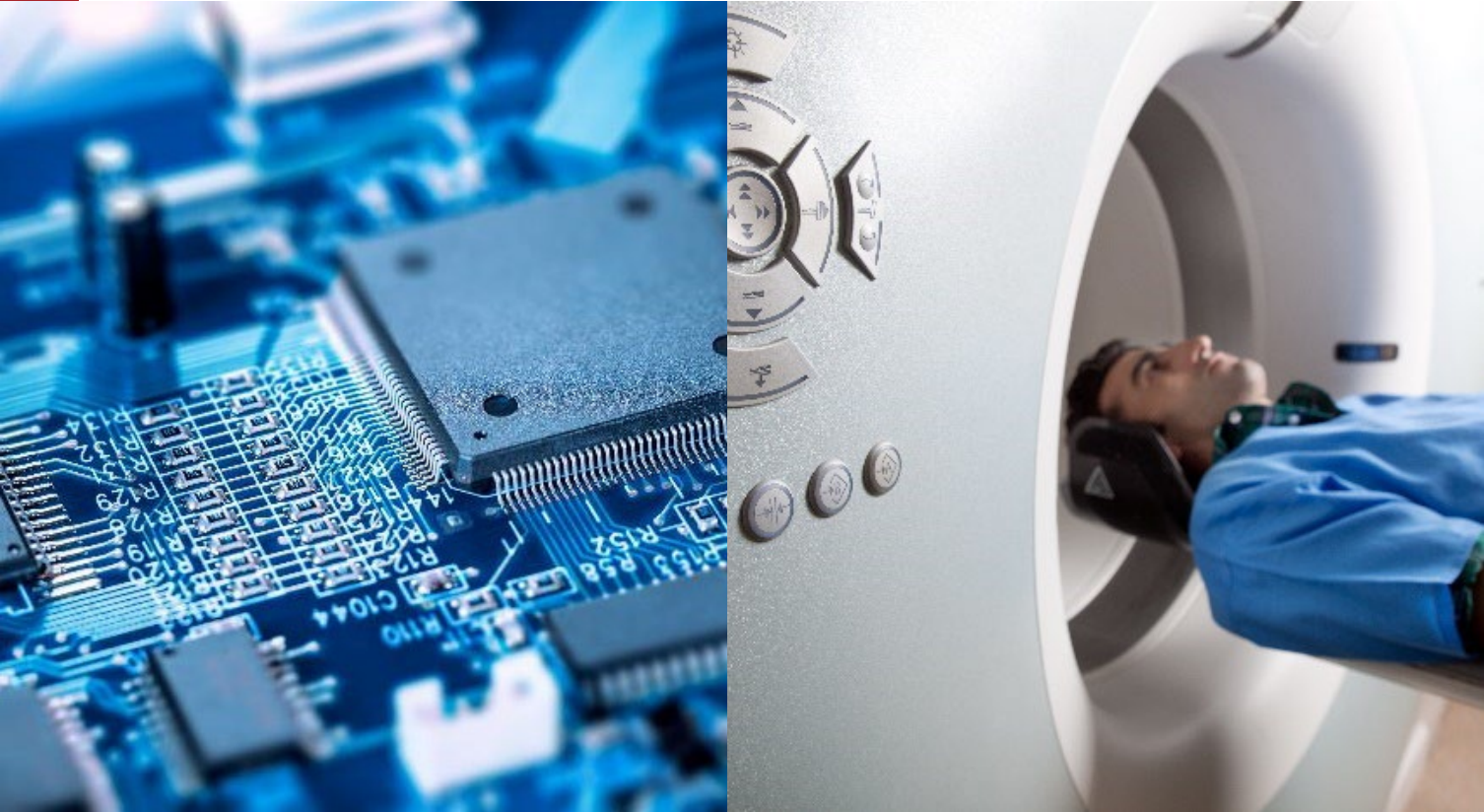


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# Semiconductor Business

# [Semiconductor] Semiconductor around us



**Semiconductor is an essential part of our lives**  
**OXIDE technology is essential for leading-edge semiconductor manufacturing**



# [Semiconductor] OXIDE in the semiconductor manufacturing process

Our Single crystals and Lasers are used in wafer surface defect inspection systems for semiconductor manufacturing processes (front-end).

Front-End



Silicon Wafer (Shin-Etsu Chemical) (1)

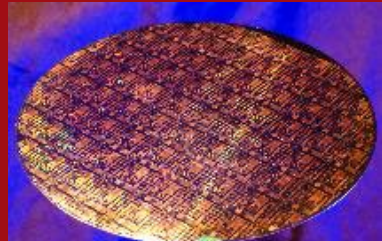
## OXIDE

Wafer surface defect inspection (Wafer without Pattern)



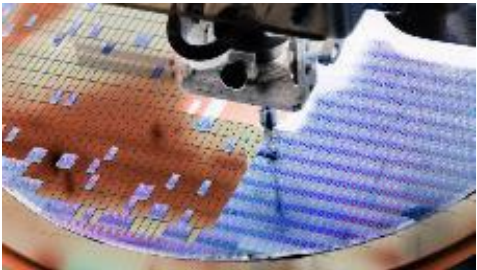
## OXIDE

Wafer surface defect inspection (Wafer with Pattern)

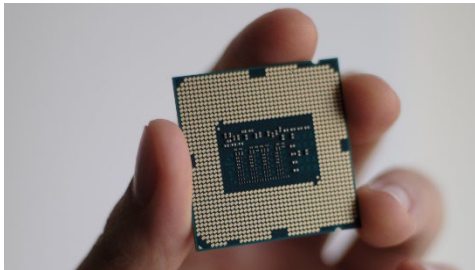


Film-deposition, patterning and etching (Tokyo Electron, KLA, Lasertec, Hitachi High-Tech) (1)

Back-End



Dicing (DISCO) (1)



Packaging (ASE) (1)

Mobile

Data center

Personal computer

Generative AI

Major Application

# [Semiconductor] OXIDE in the semiconductor manufacturing process

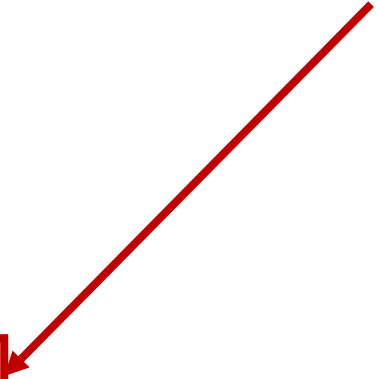
- In December 2023, OXIDE joined SEMI, the world's leading semiconductor industry organization.
- Featured in SEMI's "SEMI FREAKS: At-a-glance Semiconductor Industry Map 2024".

**SEMI FREAKS**  
**At-a-glance Semiconductor Industry Map 2024 <sup>(1)</sup>**

**部品・コンポーネント（サブシステム）**

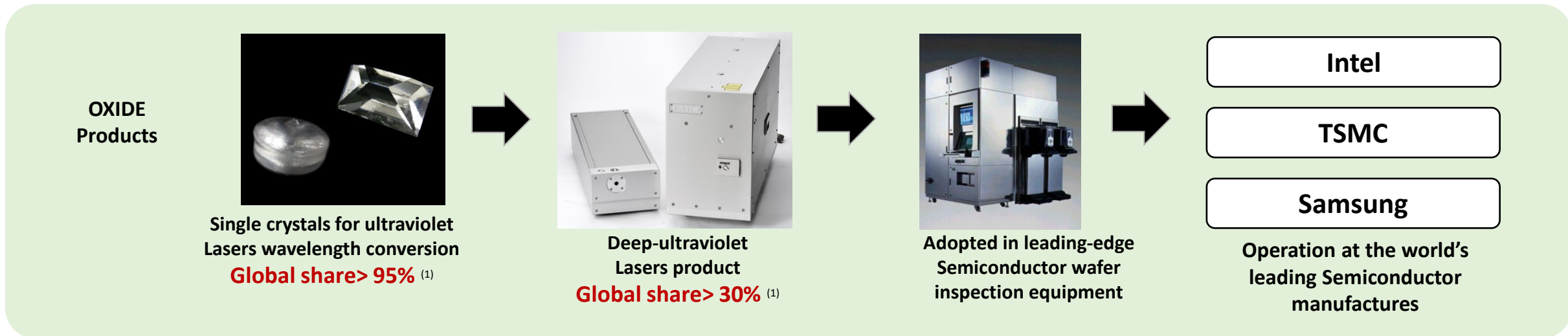
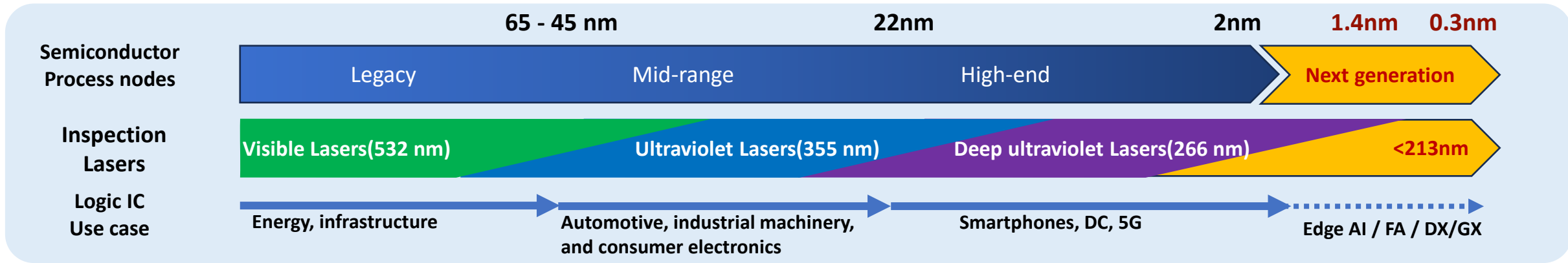
MFC (マスフローコントローラー)	流体制御
フジキン 堀場エステック	フジキン CKD
ポンプ	機械要素部品
荏原製作所 櫻山工業	THK 日本トムソン 日本ベアリング
ダイヤモンド工具	レーザー
ディスコ 旭ダイヤモンド工業	<「露光装置」用> ギガフォトン ASML (蘭)
	<「ウエハー検査装置」用> オキサイド

The only listing in category of Lasers for wafer inspection equipment



# [Semiconductor] High market share in the wafer inspection equipment

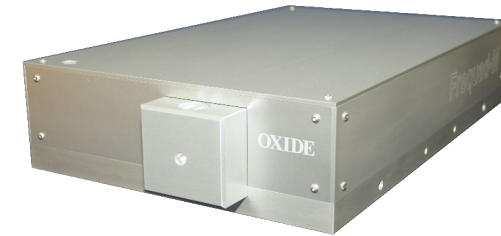
- Growing demand for new ultraviolet Lasers for high-end semiconductor process nodes 22nm and below.
- Our high-quality, long-life deep ultraviolet Single crystals and Lasers are used in semiconductor manufacturing plants around the world.





# [Semiconductor] Expanding lineup of deep ultraviolet Lasers

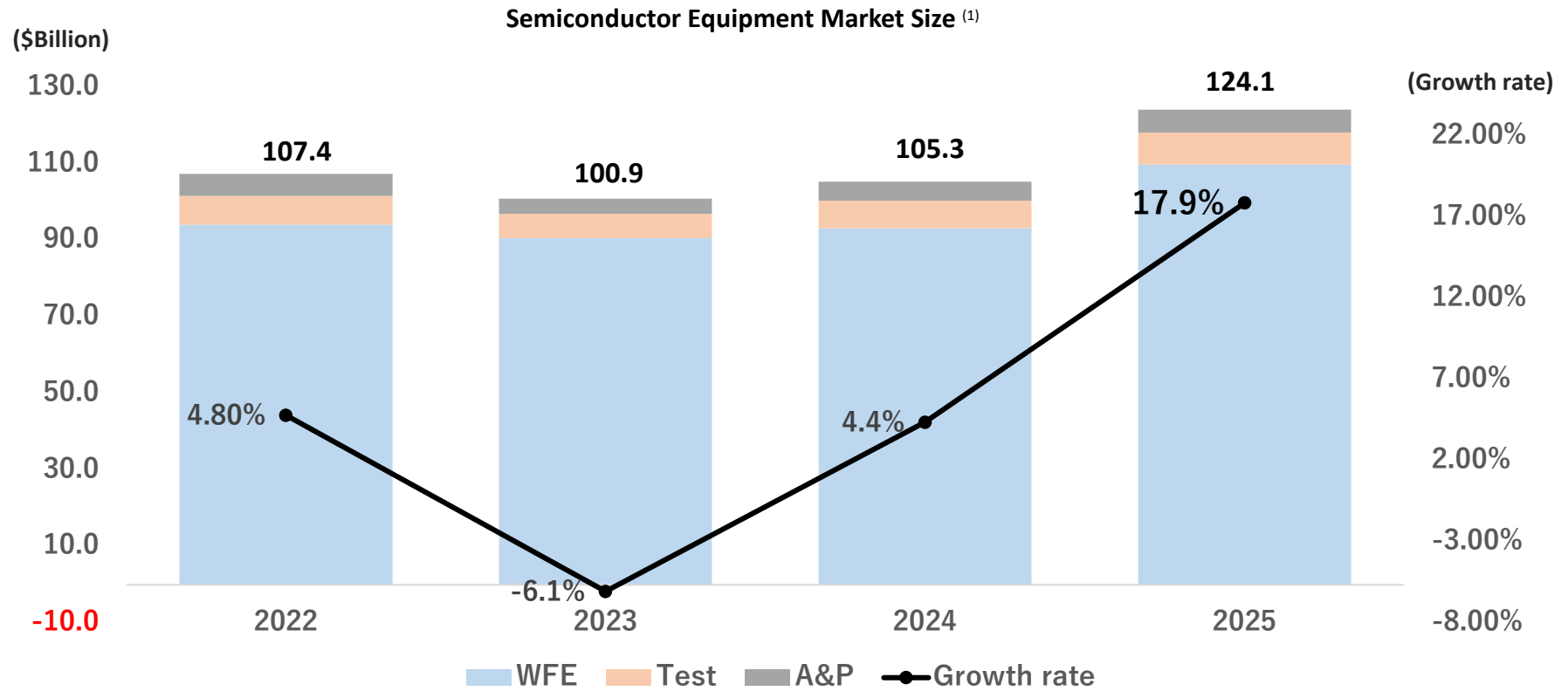
- To meet the demand for semiconductor wafer inspection light sources with shorter wavelength and a wide range of cutting-edge measurement applications, we have developed deep ultraviolet Lasers with wavelength of 257 nm, 244 nm, and 213 nm in addition to the conventional 266 nm.
- The Frequad Series is a series of Lasers that generate CW (continuous wave) light and can measure surface defects of patterned silicon wafers in semiconductor manufacturing processes with low noise.



	Existing products			New products		
<b>Model</b>	Frequad-HP	Frequad-M	Frequad-C	Frequad-M57	Frequad-M44	Frequad-W
<b>Wavelength</b>	266 nm			257 nm	244 nm	213 nm
<b>Output</b>	1 w, 2 w	0.3 ~ 1 W	20 to 50 mW	0.3 ~ 1W	100 to 200 mW	10 to 20 mW

# [Semiconductor] Market environment

■ The semiconductor manufacturing equipment market, which is the major customer for our deep ultraviolet Lasers, has been on a recovery trend since 2024. Strong 17.9% growth rate in 2025 compared to the previous year is expected.



WFE=Wafer Fab Equipment, Test = Equipment, A&P=Assembly and Packing Equipment

# [Semiconductor]Strengthening the supply chain

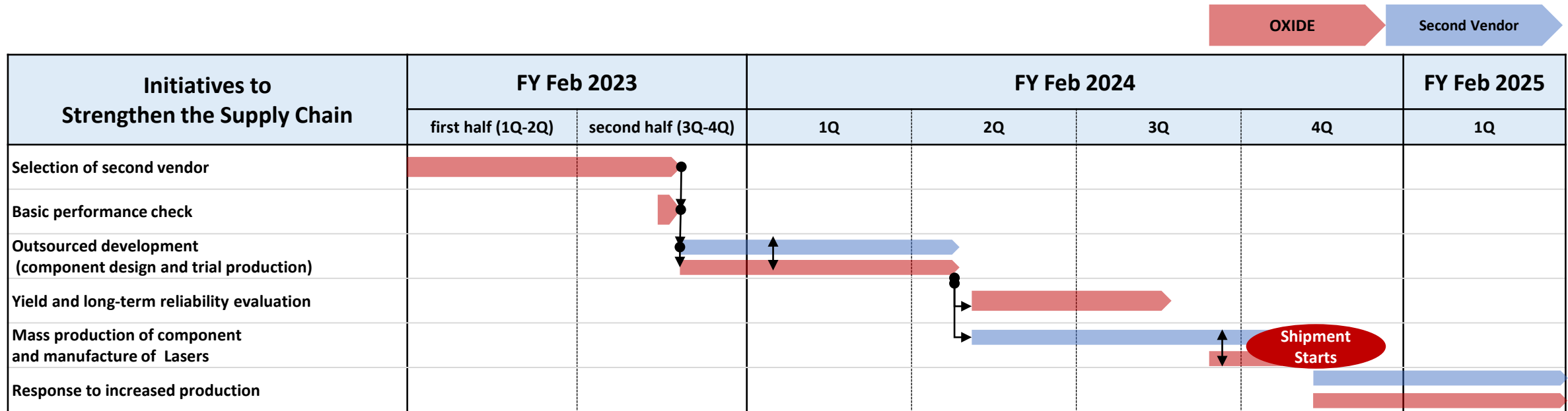
■ The yield of second vendor component have remained at 100%.

As the customer certification process progressed, we started shipping Lasers with second vendor component in January 2024.

■ We are currently in contact with several potential third vendor candidate to verify the performance.

We are also in the process of selecting materials for in-house production.

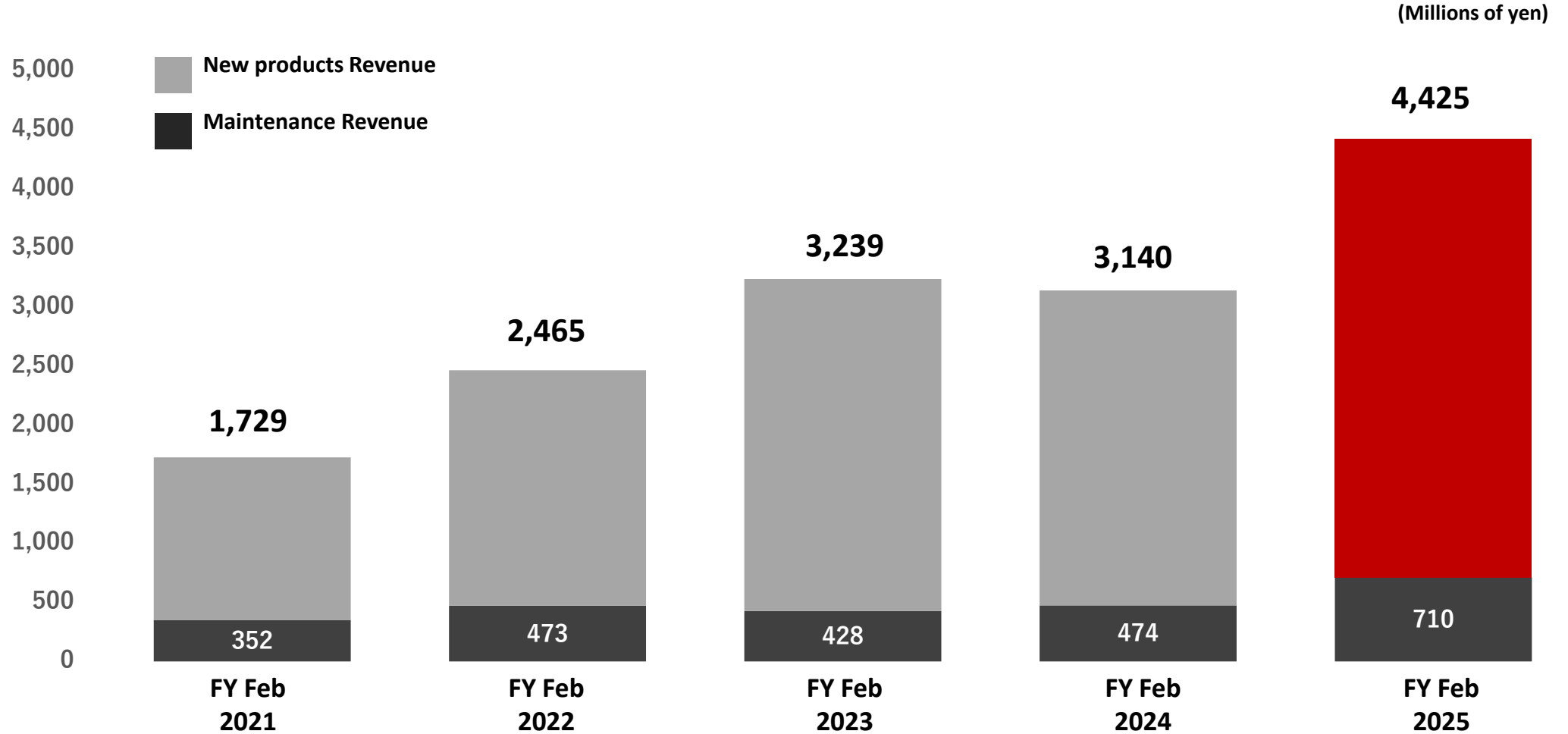
■ We are also accelerating the shift to multi-vendor sourcing for other major components.



# [Semiconductor] Revenue forecast

■ As a result of resolving component issues, we expect to recover revenues to 4,425 million yen in the FY Feb 2025.

■ This is a recurring business model in which maintenance revenue continue to occur after new products revenue.



# [Semiconductor] New order received and Order backlog

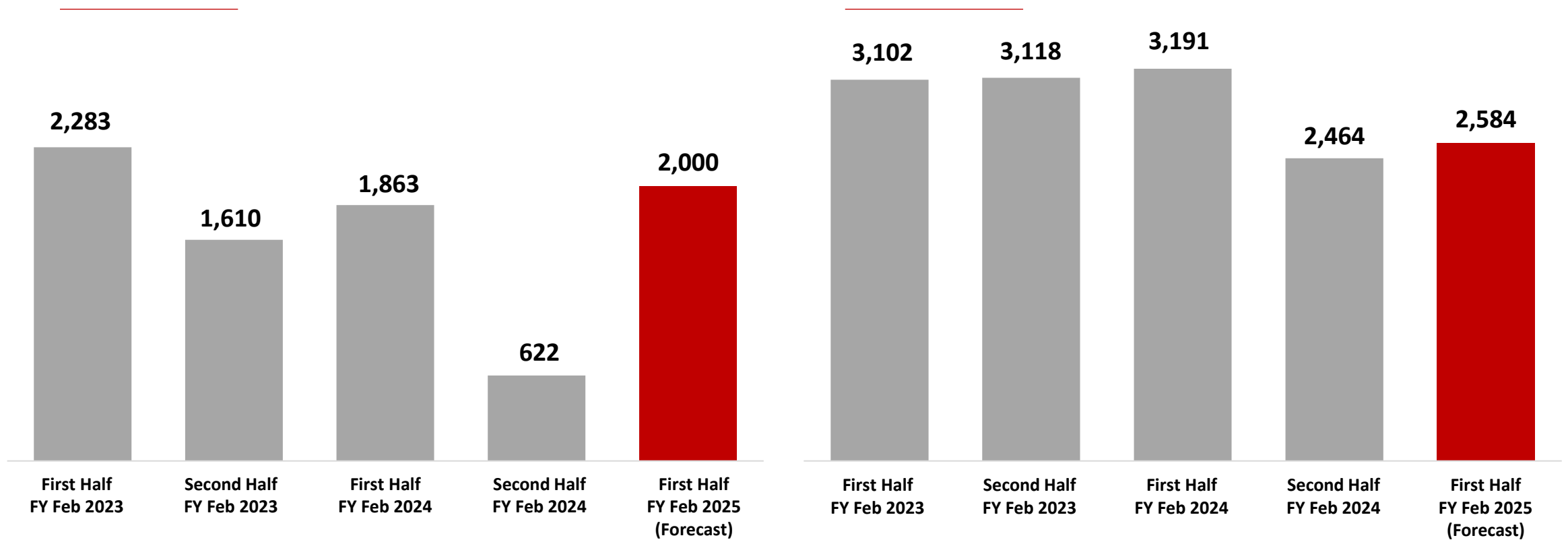
- In the second half of the FY Feb 2024, we prioritized the response to manufacturing of projects that had already been ordered and restricted new orders.
- From the first half of the FY Feb 2025 , new order received are also expected to recover.

## New order received

(Millions of yen)

## Order backlog

(Millions of yen)





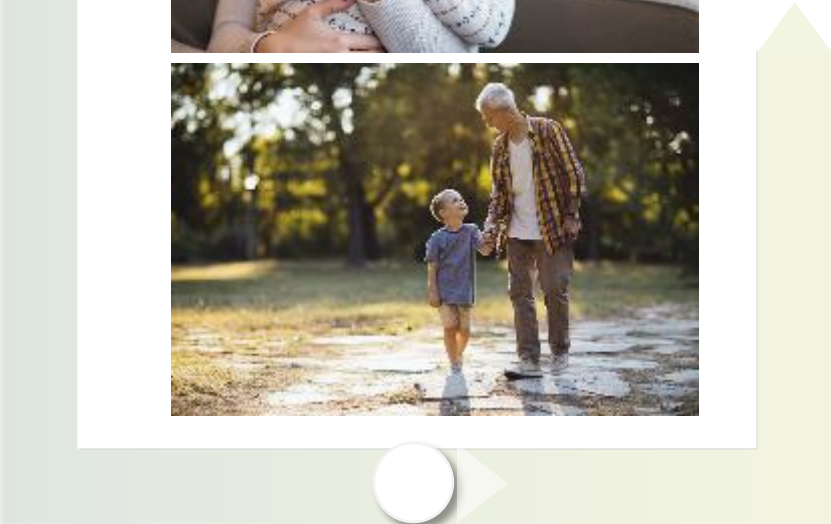
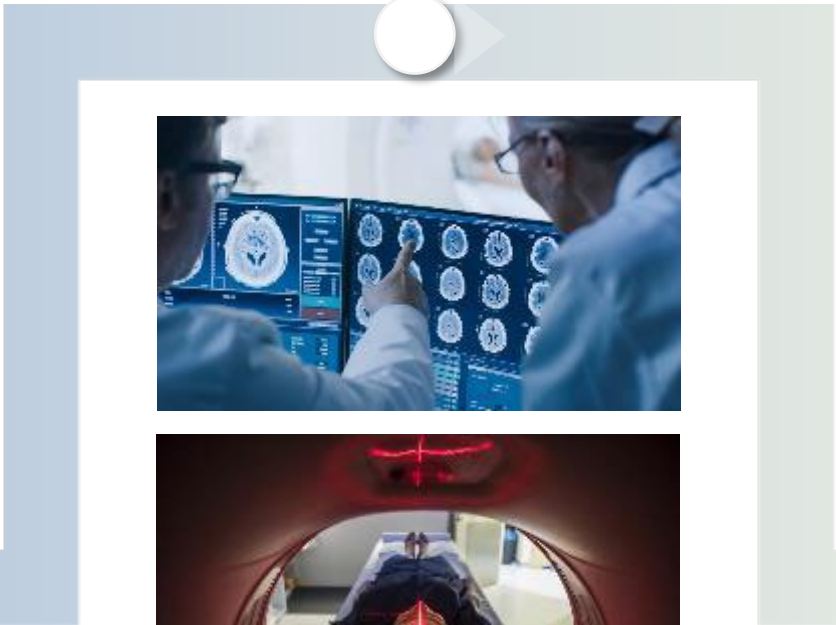
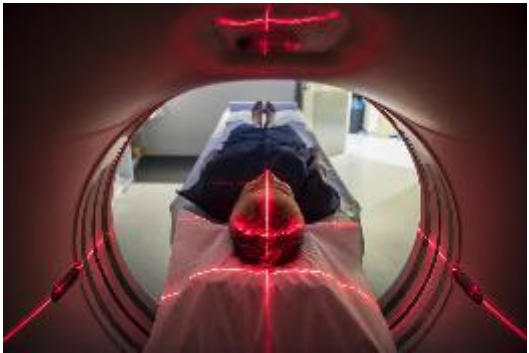
# Healthcare Business

# [Healthcare] A more secure future thanks to OXIDE crystal technology



**From crystals to devices**

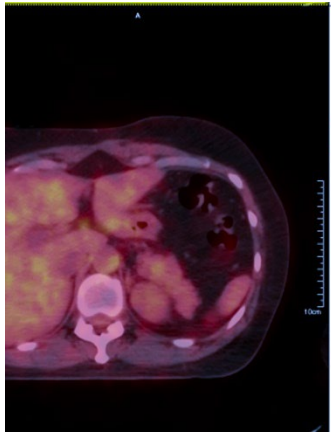
**From testing to treatment**



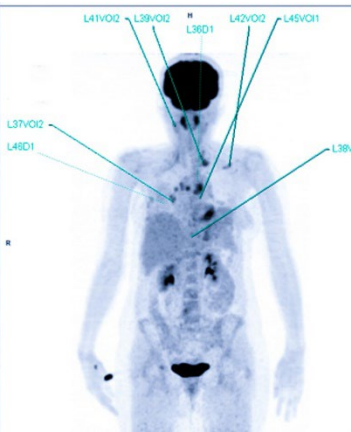
**Towards a more secure future security**

## Cancer diagnosis PET scanners and scintillator Single crystals

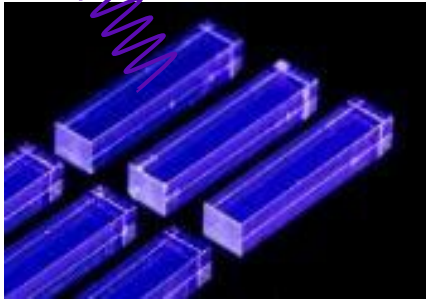
- A PET system for cancer diagnosis involves injecting a radioactive agent into a patient. It is an inspection device that detects radiation emitted from the medicine.
- Scintillator Single crystals emit light in response to radiation and are an essential material for PET scanners.



PET diagnostic imaging



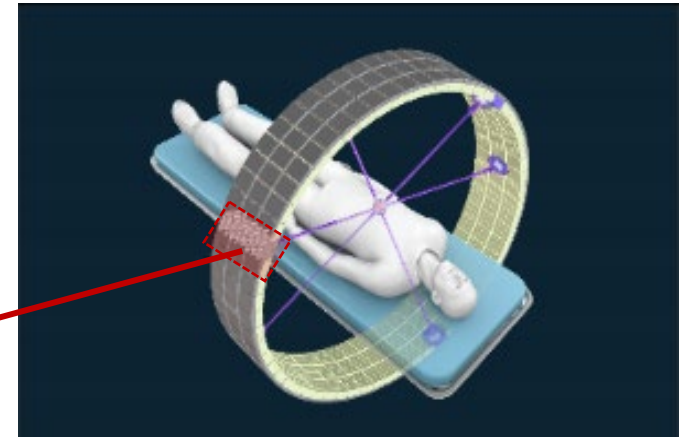
Radiation



Scintillator Single crystals



OXIDDE products used in PET scanners



Structure of PET scanners

**Global share ~20%**



# [Healthcare] Competitive advantage of OXIDE scintillator



**OXIDE  
Scintillator  
Single crystals**

**1**

High-quality Single crystals made with our proprietary crystal growth technology

**Crystal technology**

**2**

High yield rate due to many years of improvement in production technology

**Mass production technology**

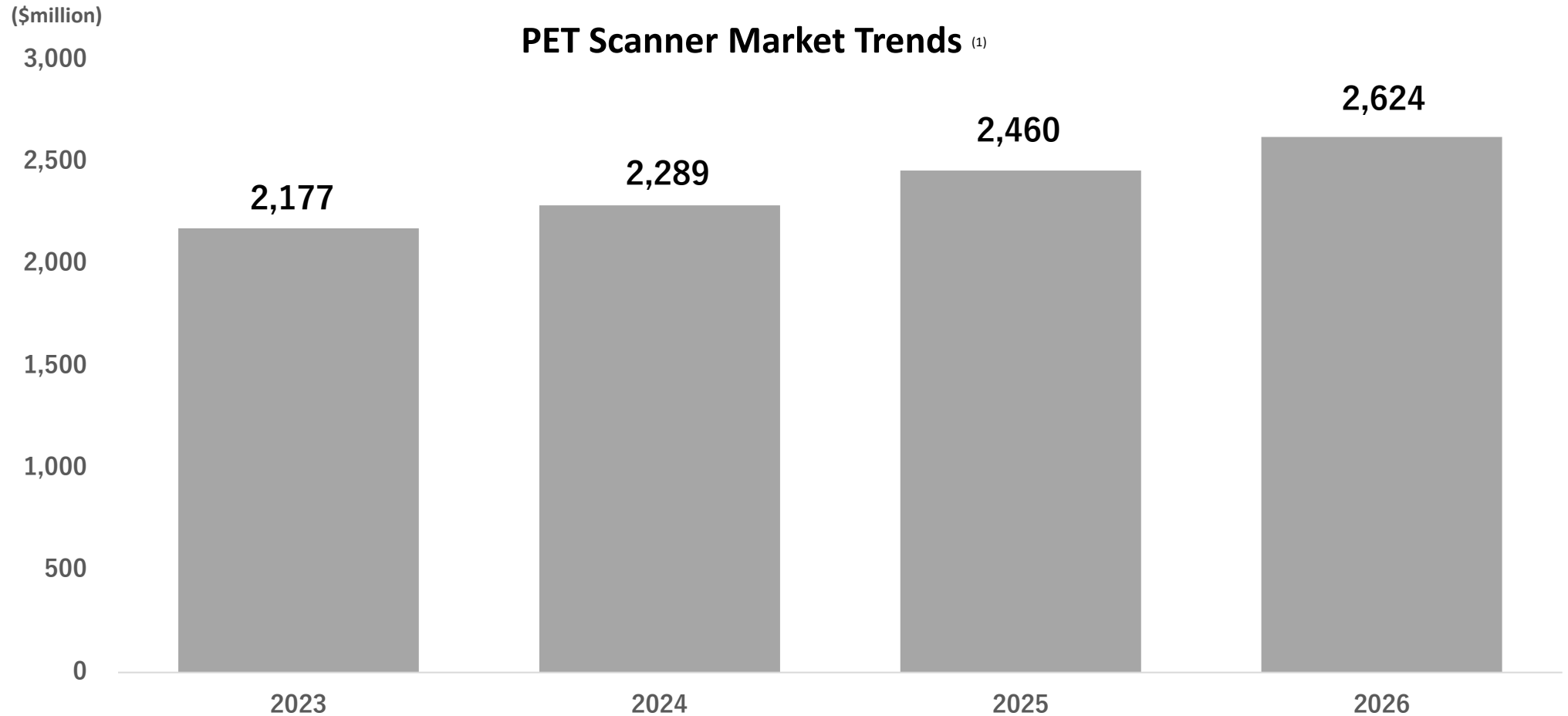
**3**

LGSO Single crystals: Barriers to entry due to extensive patents

**Patents**

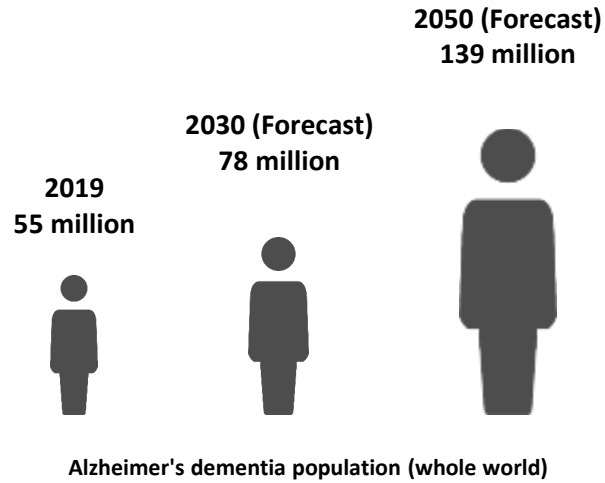
# [Healthcare] Market environment

■ PET scanner market is expected to grow at a steady rate of more than 5% per year.

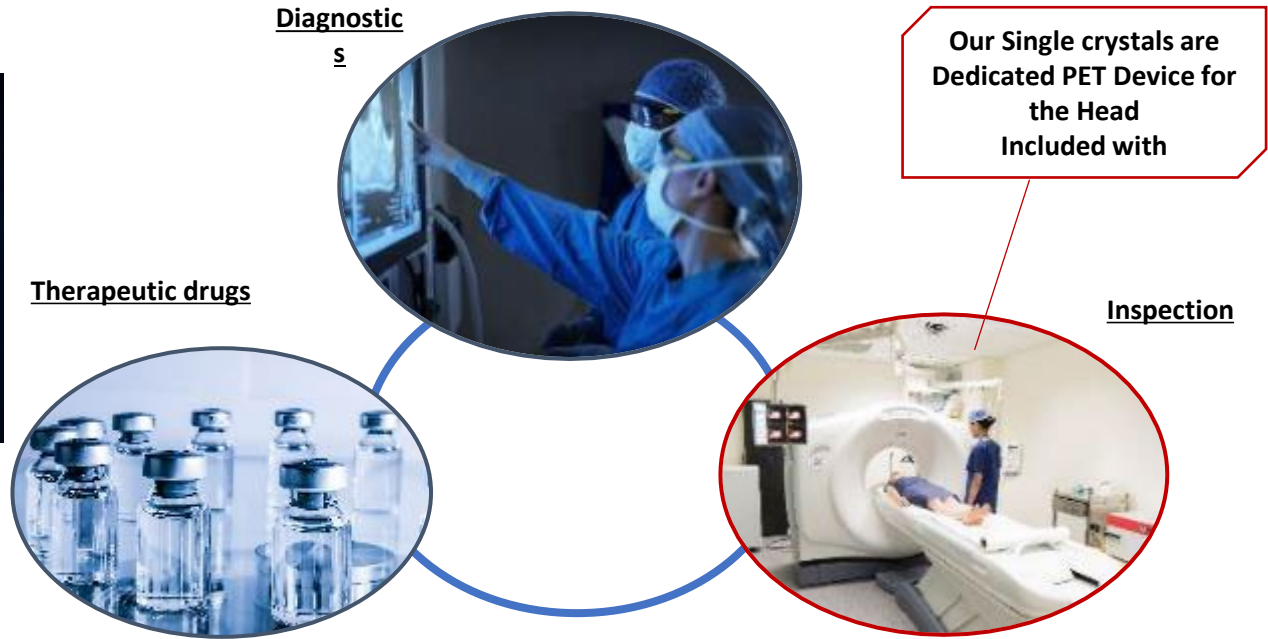


# [Healthcare] Trends of Brain PET scanners

- Brain PET is a test for amyloid -  $\beta$ , the substance that causes Alzheimer's disease.
- Inquiries for our scintillator Single crystals are on the rise.



Source: WHO fact sheets on 20 September 2022

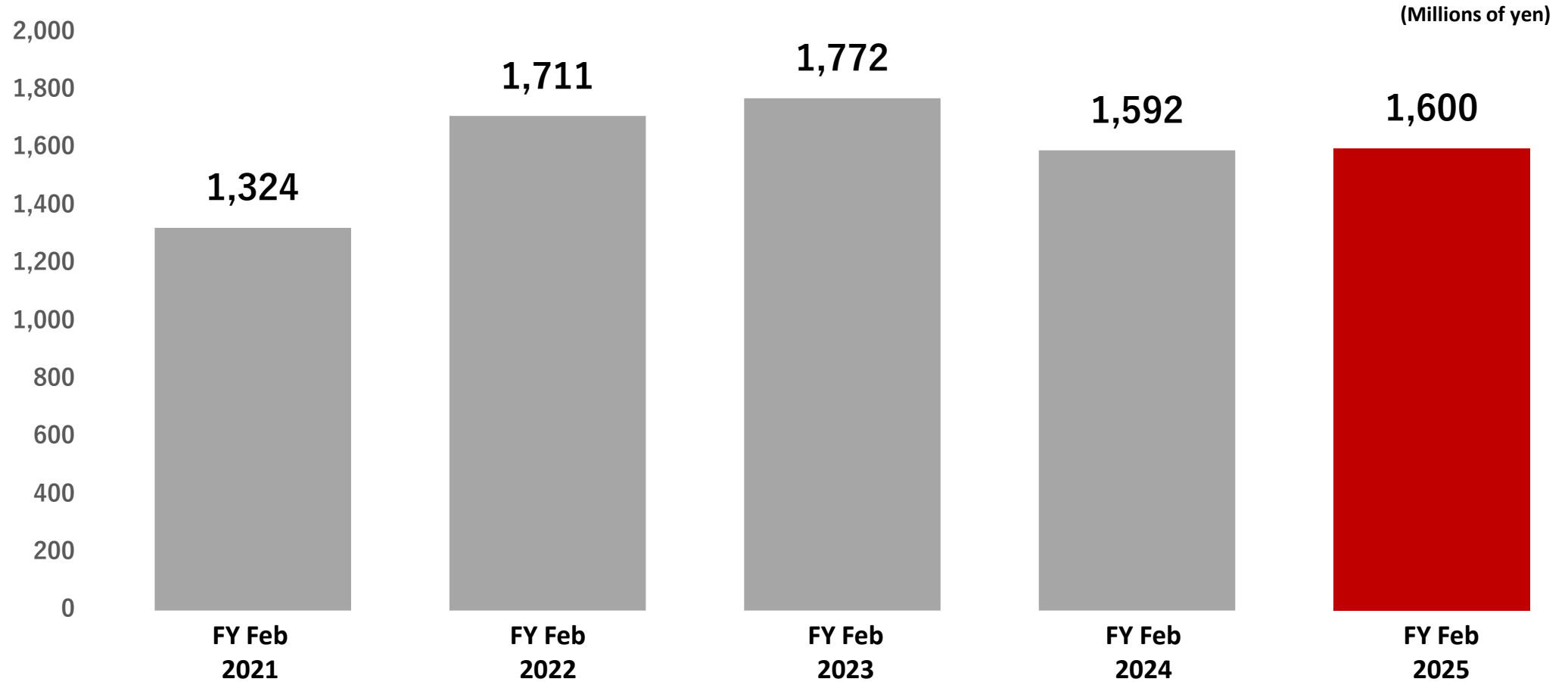


**Eisai**  
**Alzheimer's disease treatment Recanumab**  
**July 6, 2023: Formally approved in the United States**  
**September 25, 2023: Approved by the Ministry of Health, Labour and Welfare in Japan**

# [Healthcare] Revenue forecast

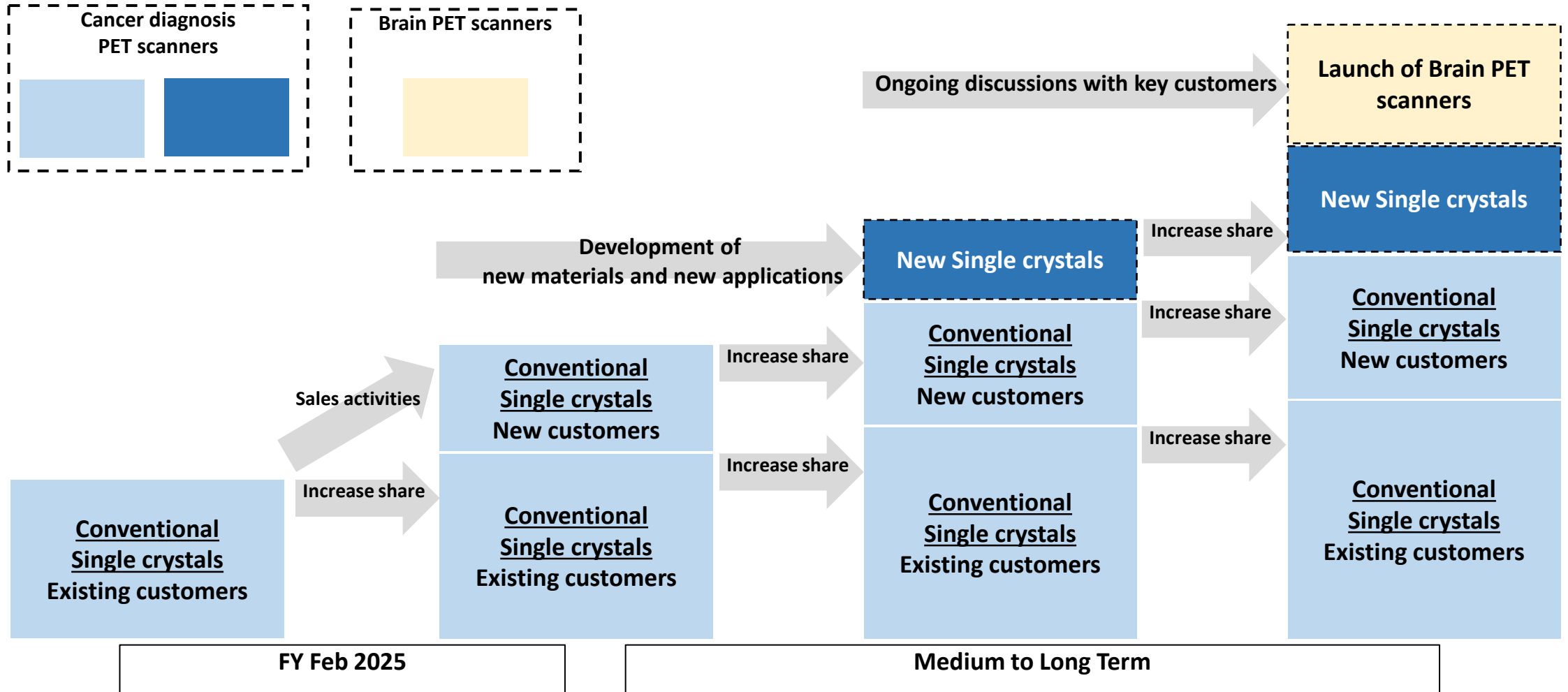
■ For the FY Feb 2025, we expect to earn revenue of 1,600 million yen.

■ We will continue to develop new customers for Cancer diagnosis PET scanners and Brain PET scanners.



# [Healthcare] Business strategy

- We will accelerate sales activities to new customers and develop new materials and applications for Cancer diagnosis PET scanners.
- At the same time, we will continue discussions with major customers toward the launch of Brain PET scanners market.

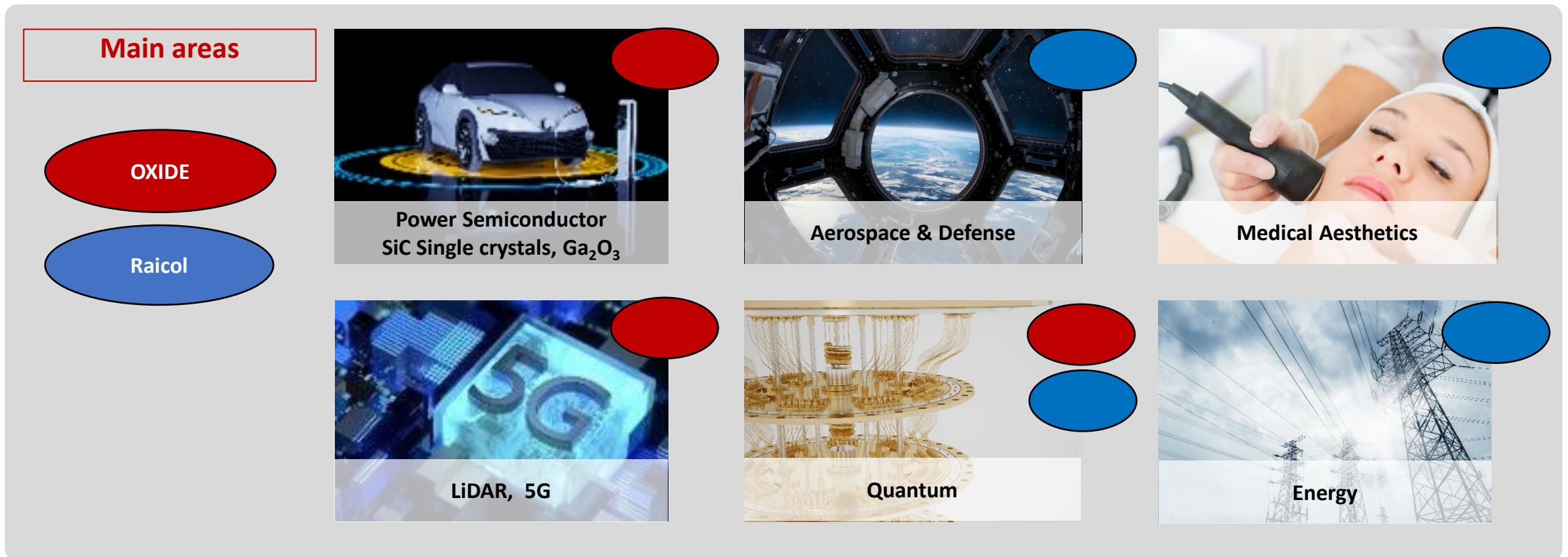




# Frontier Technology Business

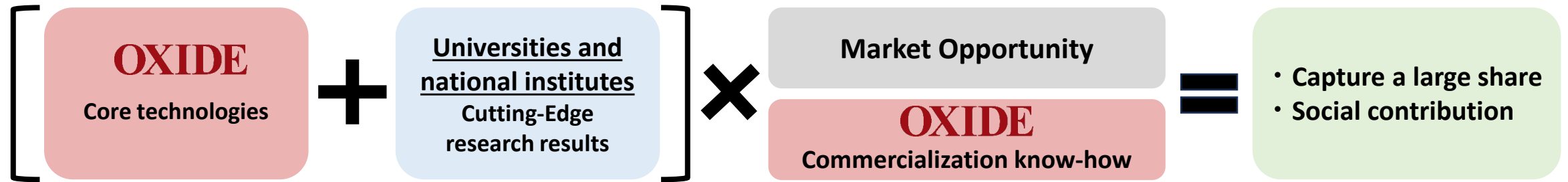
# [Frontier Technology] Initiatives for new business

- We are working on the implementation of more than 10 R&D themes, including SiC Single crystals and quantum entanglement light sources.
- As a result of Raicol acquisition, we expanded the following new businesses: Aerospace & Defense, Energy, and Medical Aesthetics.

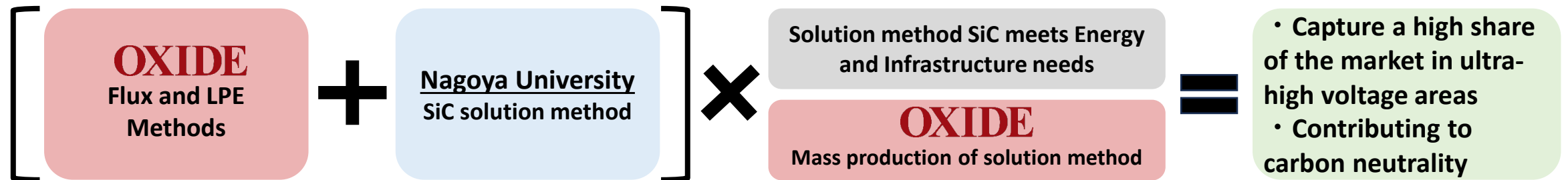


# [Frontier Technology] Criteria for selection of R&D themes

- We select R&D themes that have our own strengths and technological advantages over other companies and that can command a high share of the market.
  - We will contribute to society by implementing cutting-edge research results using our core technologies and commercialization know-how.
  - Combining our core technologies with cutting-edge research results from universities and national research institutes.
  - Meeting the needs of customers and society, regardless of the size of the market, is also a selection criterion.



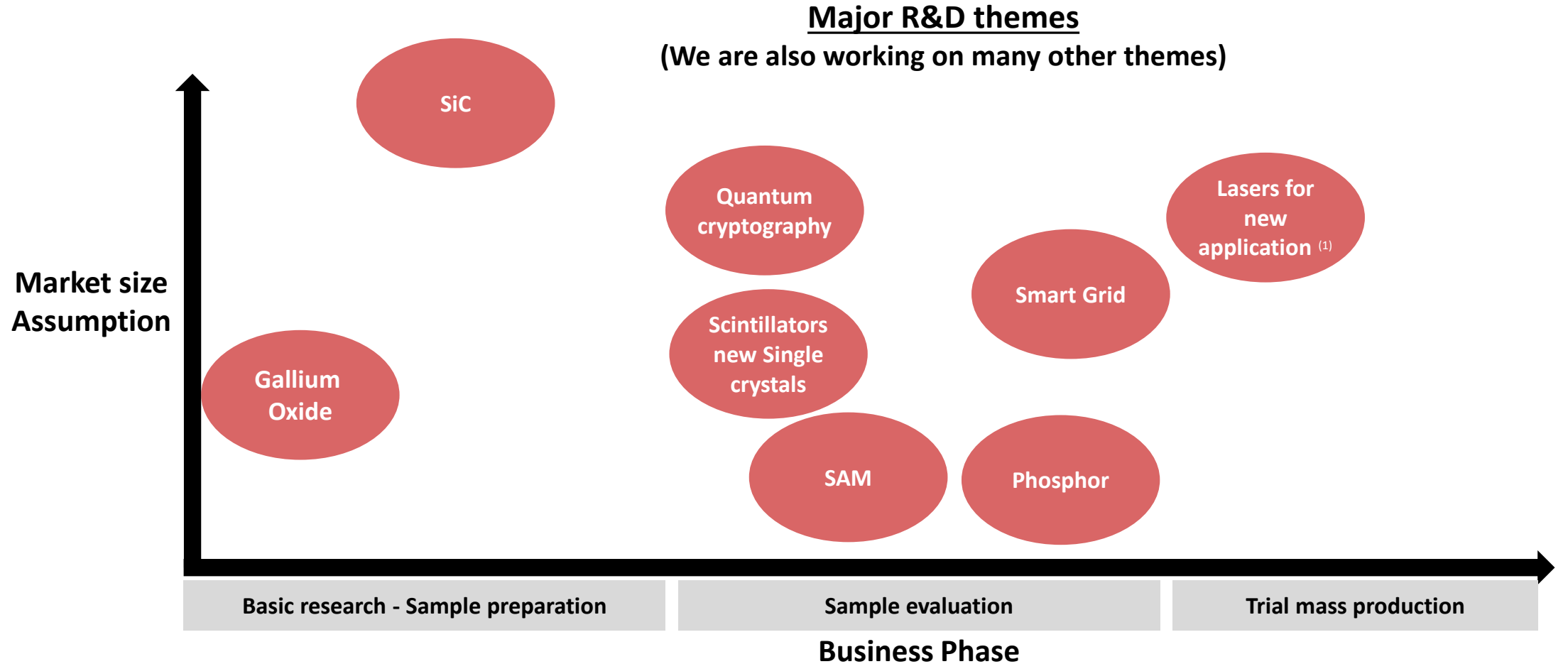
## Example: SiC Single crystals





# [Frontier Technology] R&D portfolio

R&D themes determined using the selection criteria are managed in the portfolio according to the business phase and the market size assumption.



# [Frontier Technology] Raicol PMI

■ Raicol PMI since March 2023 has been proceeding steadily despite the impact of the recent conflict in Israel.

(millions of yen)

Raicol revenue have been on a solid growth trend

Sixteen employees were initially mobilized as reserves, but all have returned to work

Co-Exhibiting at Major International Exhibitions (USA, Germany, Japan)  
Accelerate collaboration in sales activities

Selected 12 themes for joint projects and assigned a project manager for each theme

	2021	2022	2023
revenue at Raicol <sup>(1)(2)</sup>	1,159	1,594	1,903



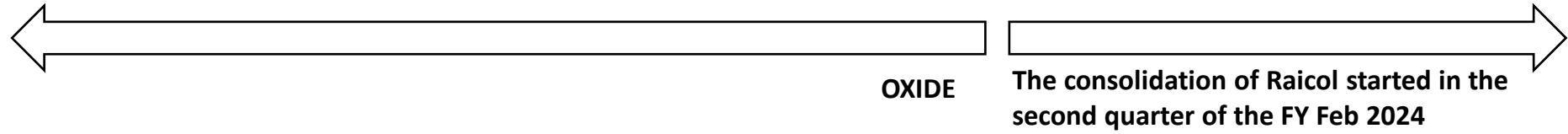
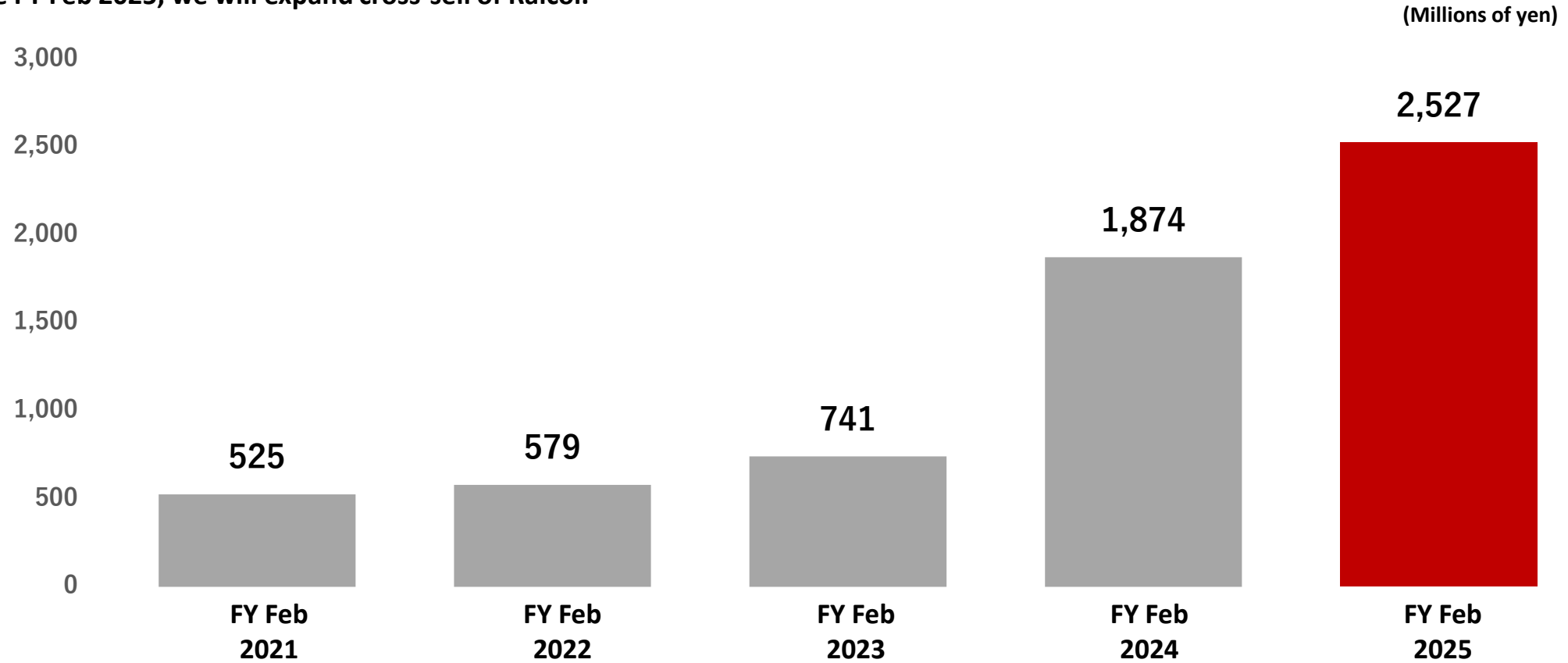
January 30 to February 1, 2024  
Joint booth at Photonics West2024

(1) NIS (new shekel) = JPY 40

# [Frontier Technology] Revenue forecast

■ The consolidation of Raicol started in the second quarter of the FY Feb 2024.

■ In the FY Feb 2025, we will expand cross-sell of Raicol.

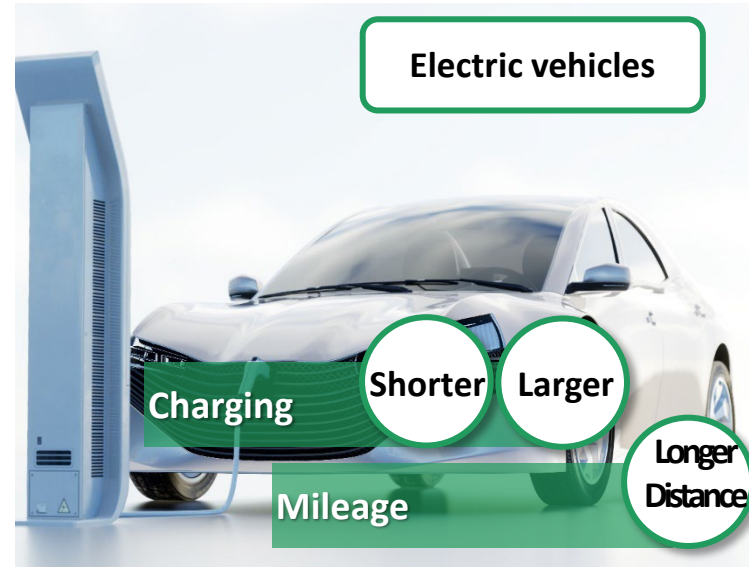


## Next-generation Power Semiconductor for achieving carbon neutrality

■ We are currently engaged in the development of mass production technology for SiC Single crystals and  $\beta$ -type Gallium Oxide.

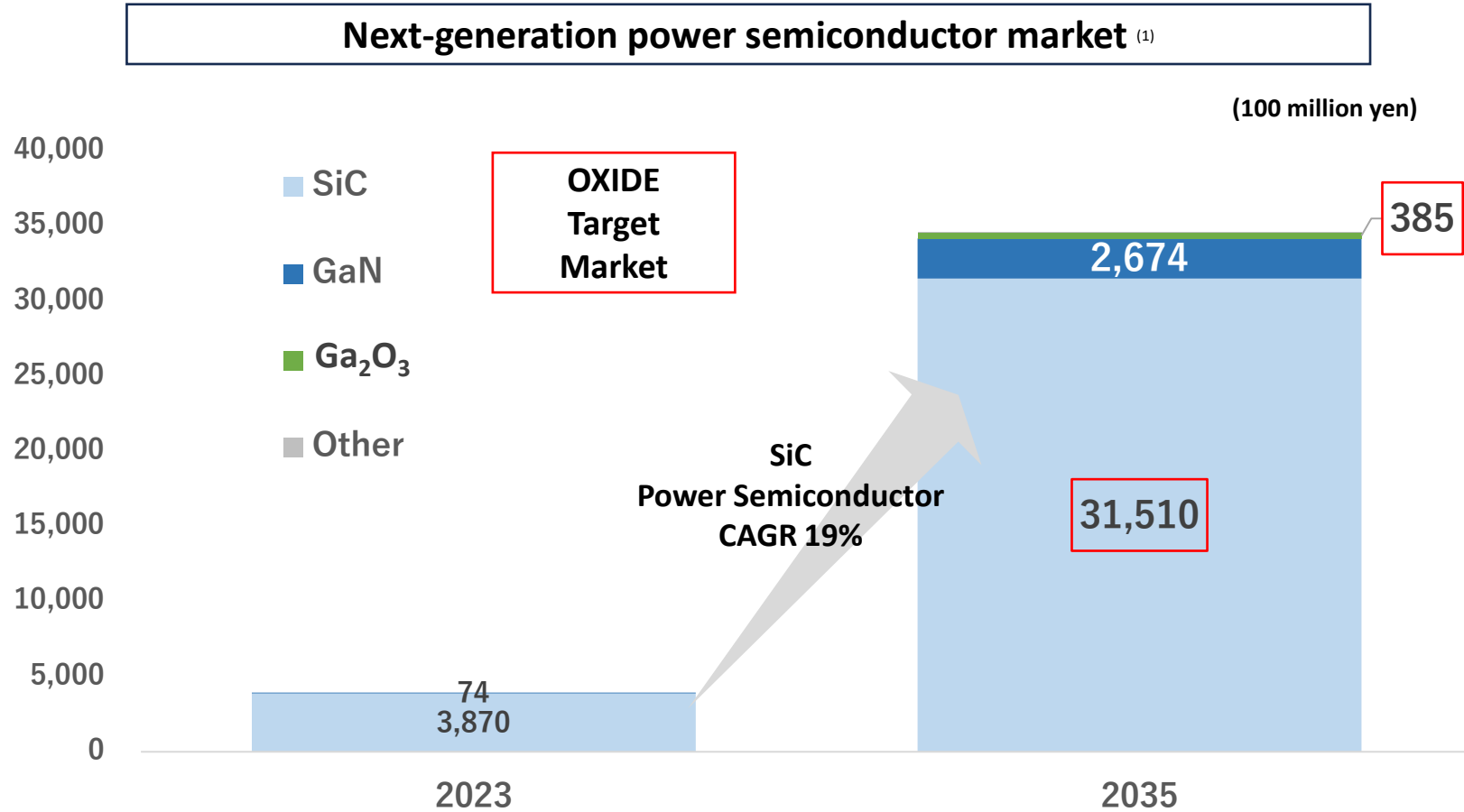


SiC Single crystals  
 $\beta$ -type Gallium Oxide



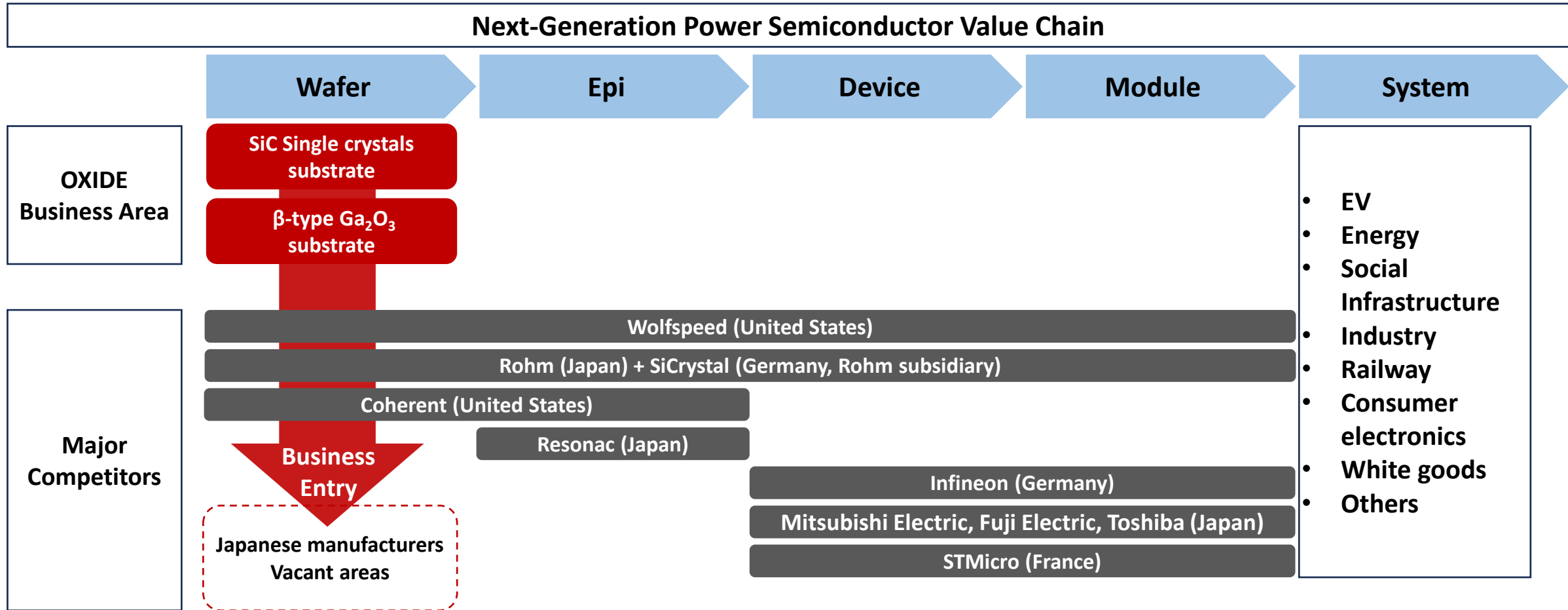
## Market environment for next-generation power semiconductors

■ The market for next-generation power semiconductor, such as SiC, GaN, and Gallium Oxide(Ga<sub>2</sub>O<sub>3</sub>), is growing rapidly.



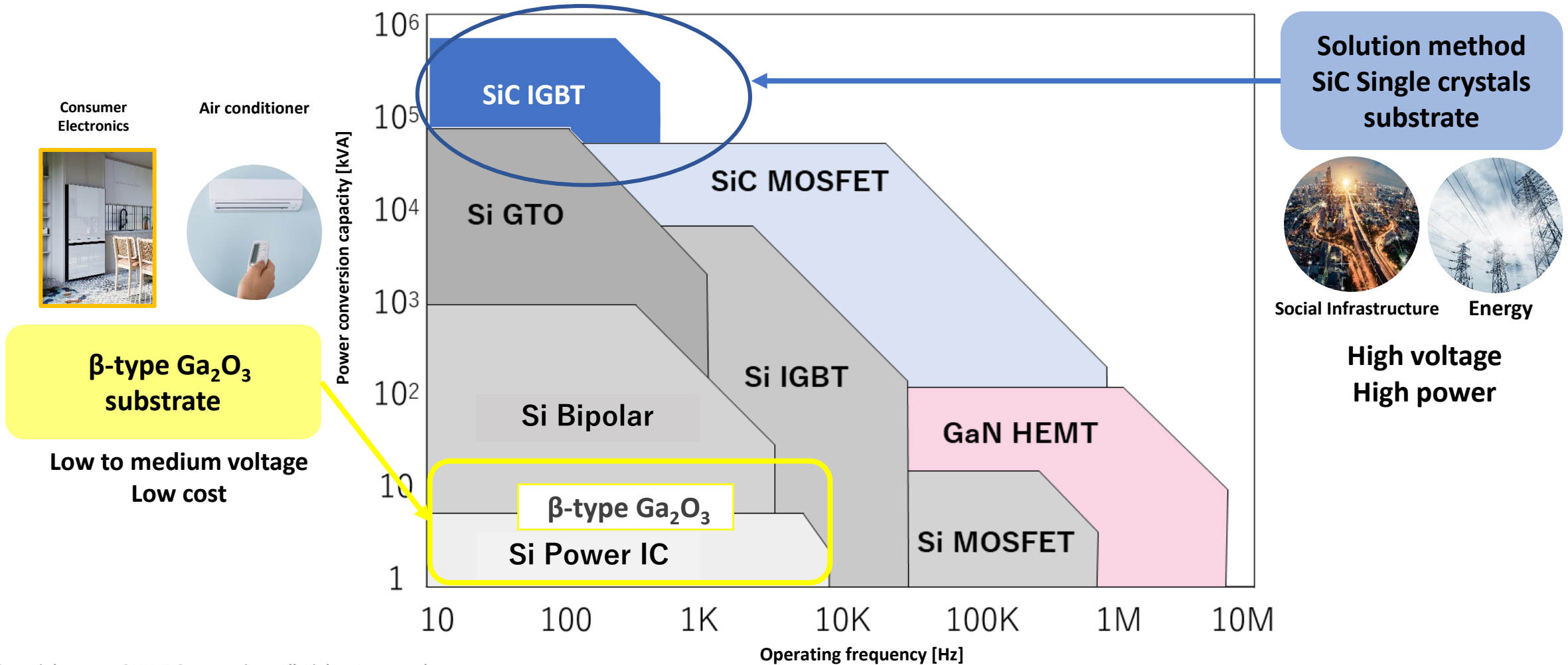
## Next-generation Power Semiconductor Business Model

As a leading company of Single crystals, we will make the power Semiconductor business a subsidiary and develop the business of substrates, which are located upstream in the value chain.



## Target Markets for Next Generation Power Semiconductors

- We are currently engaged in the development of mass production technology for SiC Single crystals and  $\beta$ -type Gallium Oxide.
- We aim to create markets in the high voltage and high power areas for SiC and the low and medium voltage areas for  $\beta$ -type Gallium Oxide.



## Advantages of SiC Single crystals using the solution method

- We are working on growing SiC Single crystals using the solution method in collaboration with UJCrystal, a startup from Nagoya University.
- The solution method is expected to be able to produce SiC Single crystals with fewer defects than the sublimation method, another growth method.
- While SiC Single crystals grown by the sublimation method are n-type, the solution method can grow both n-type and p-type, expanding the range of applications.
- This is an environmentally friendly growth method that can be expected to have an energy-saving effect at the manufacturing stage because it allows crystal growth at low temperatures.

Previous growth methods

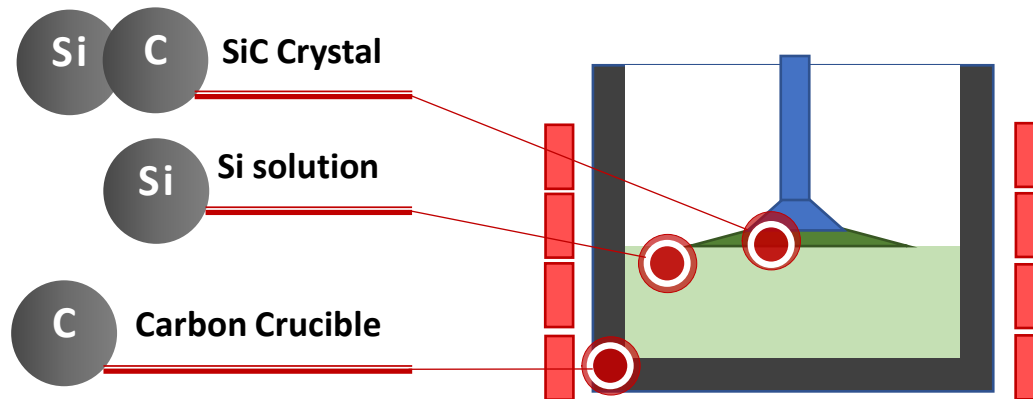
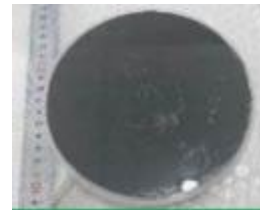
Sublimation method



New growth method

Solution method

6-inch SiC Single crystals



### Larger diameter

Thermal distortion is small, making it possible to increase the diameter.

### Low defect density

Small temperature gradients result in few defects.

### Speed of growth

The growth rate is carbon supply limited and does not require a temperature gradient.

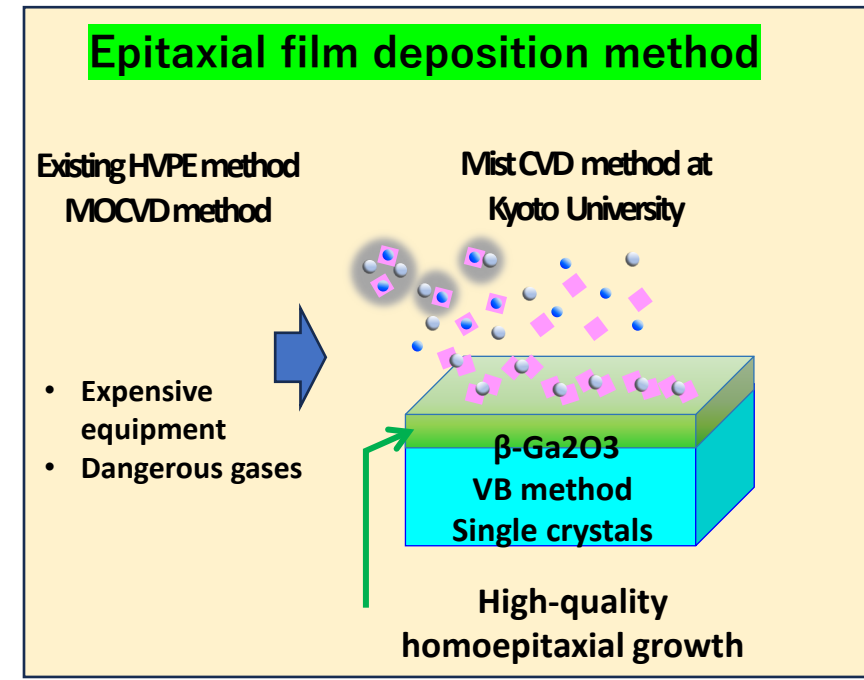
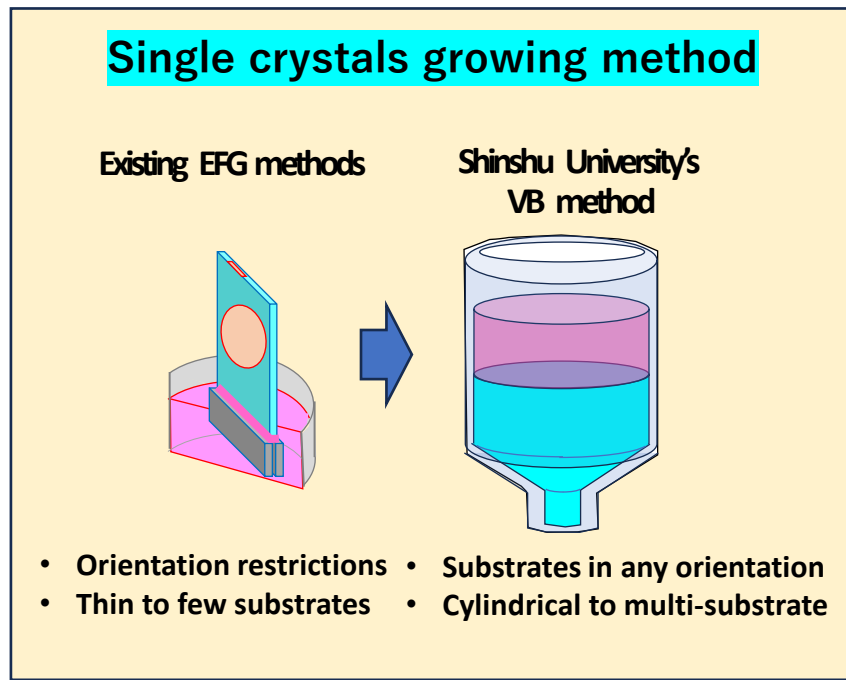
### Low environmental impact

The crystal growth temperature is lower than other growth methods, making it environmentally friendly.



## Contributing to the realization of a decarbonized society by $\beta$ - type Gallium Oxide

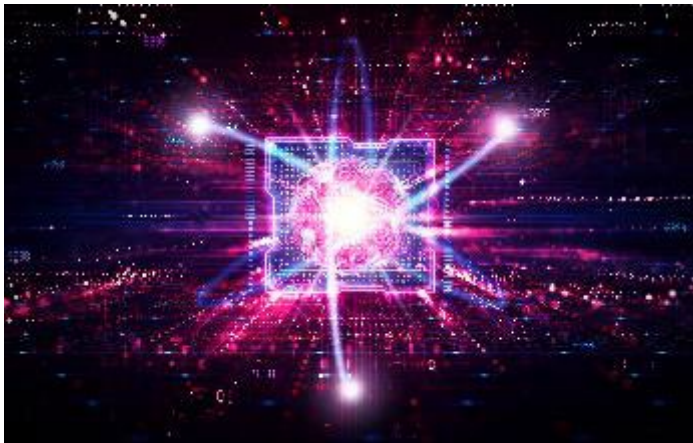
- Research and development of energy-saving technologies and promotion of their implementation in society toward the realization of a decarbonized society. We will promote the development of low-cost  $\beta$ -type  $\text{Ga}_2\text{O}_3$  homoepitaxial substrates through NEDO project.
- We will promote a new material for power semiconductors in the production of consumer electronics for general use, such as air conditioners and refrigerators, by mass-producing low-cost manufacturing methods developed by Shinshu University and Kyoto University.



Jointly conducted by OXIDE, Ceratec Japan, Shinshu University, Kyoto University, and Ritsumeikan University

# [Quantum] Development of quantum technology

- **Quantum technology will make significant progress in solving social issues, such as the realization of innovative computing services, secure and advanced communications, and ultra-high-precision sensing.**
- **Both of these fields use optical Single crystals and devices made by OXIDE and Raicol, and the development of practical systems is progressing from R&D through large-scale investment at the national level.**



**Quantum computing**  
Realization of innovative  
computation services



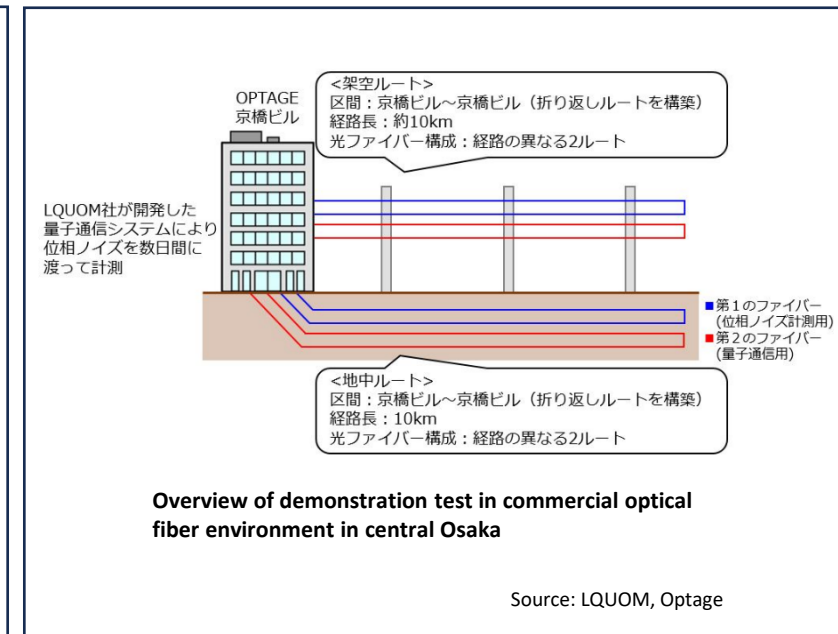
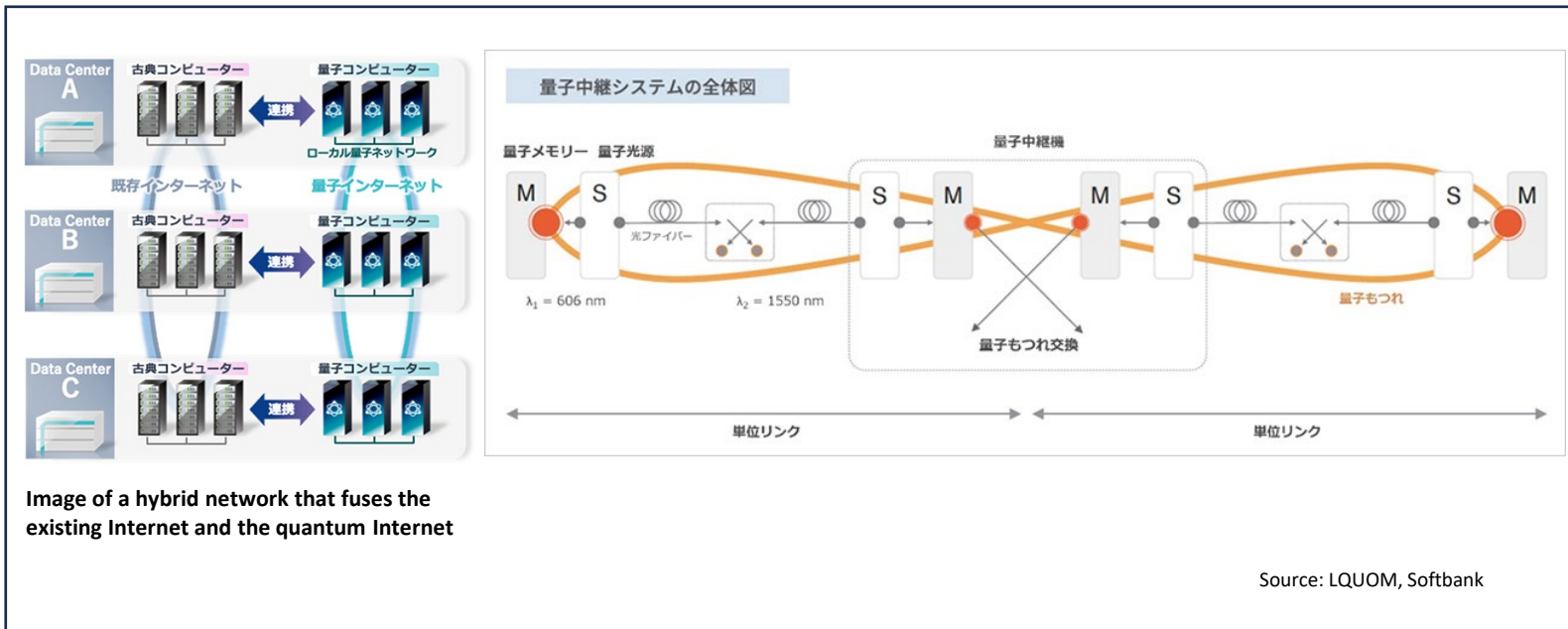
**Quantum cryptography**  
Enabling secure and advanced  
communications



**Quantum sensing**  
Realization of ultra-high precision  
sensing

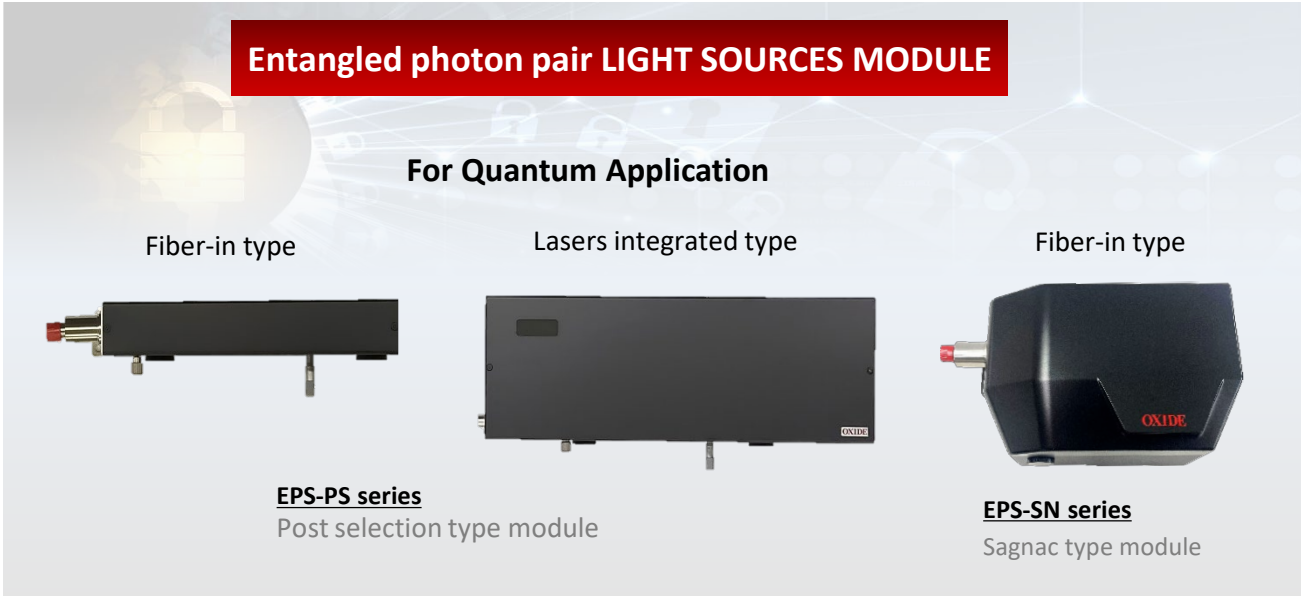
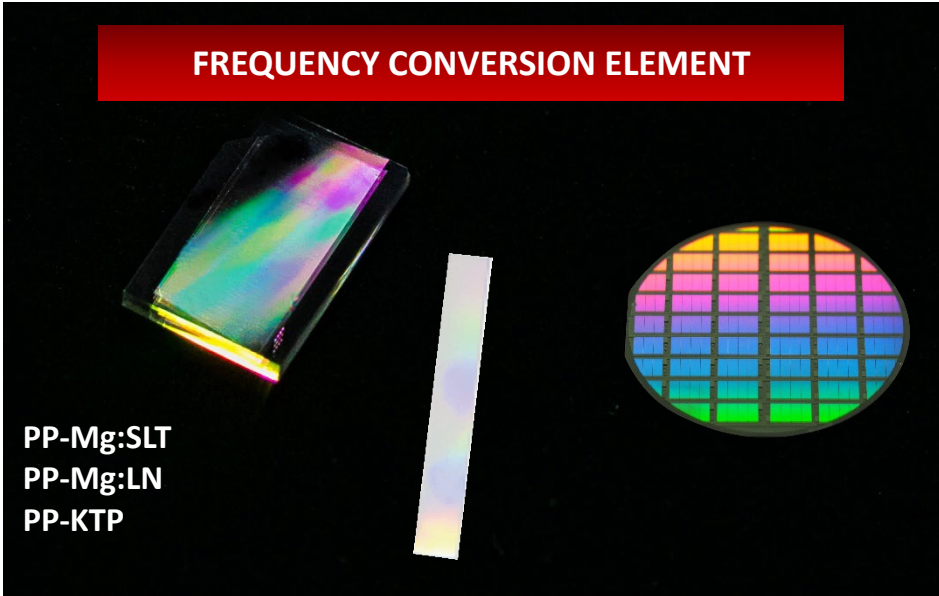
## Progress in LQUOM's long-distance quantum communication technology

- OXIDE and Raicol have developed frequency conversion devices, entangled light sources, and quantum memory crystals, which are core technologies for quantum communications.
- LQUOM, in which we have invested, is developing quantum repeaters that make possible long-distance quantum cryptography communications using our technology.
- LQUOM has begun transmission experiments of quantum communication using commercial optical fibers (SoftBank and Optage).



# [Quantum] Entangled photon pair module

- We develop and supply entangled photon pair source modules that use frequency conversion devices manufactured by OXIDE and Raicol.
- This light source module can be used in a wide range of application fields, including quantum cryptography and communications and quantum sensing.
- The combination of OXIDE and Raicol component and mounting technologies has enabled us to realize features for R&D use and practical systems.





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5 - Financial and risk information

# Sustainability concepts and initiatives

Based on our management philosophy, we have established a sustainability policy with the aim of realizing a sustainable society and increasing corporate value.

## Sustainability Policy

1. Based on our venture spirit of "working on things that do not exist in the world or that other companies dare not do," we will develop technologies and products that solve social issues and contribute to people and the global environment.
2. We will correctly recognize the effects and impacts of our technologies on society and deliver products that combine high quality and safety to the world.
3. The Company will promote open innovation to create new added value quickly and efficiently.
4. As a good corporate citizen, the Company and its officers and employees will work together with local communities to resolve issues toward the realization of a sustainable society.
5. We will continue to reform working styles and improve the workplace environment, and provide educational opportunities, so that all officers and employees can fully demonstrate their abilities.



# Sustainability concepts and initiatives

## Environment : Climate Change



### Policy

By reducing CO<sub>2</sub> emissions from our business activities and society through the use of our products, we contribute to the reduction of global environmental load.

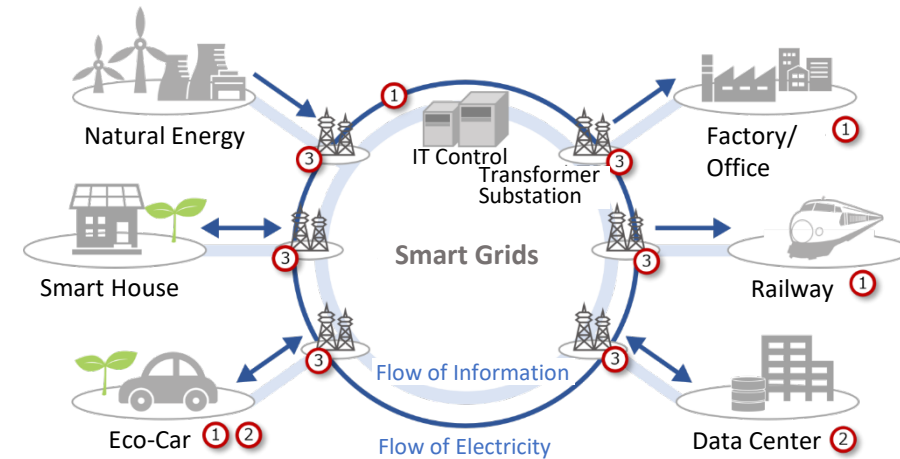
### Goal

- We will promote R&D of next-generation power semiconductor materials that reduce energy loss and contribute to the reduction of CO<sub>2</sub> emissions in society, as well as single crystals for sensors used in smart grids.
- As CO<sub>2</sub> emissions are expected to increase due to business expansion, we will curb CO<sub>2</sub> emissions from business activities by improving production efficiency implementing energy-saving equipment.

### Major initiatives

- Provision of products that contribute to the reduction of CO<sub>2</sub> emissions in society

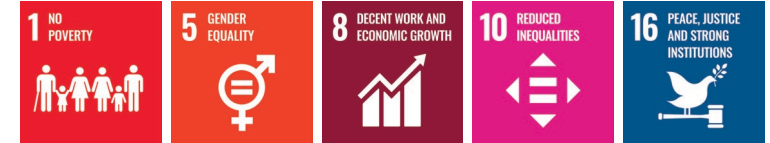
- ① SiC single crystals
- ② SAM single crystal substrate for GaN
- ③ RTP crystals



- Reducing CO<sub>2</sub> emissions from business activities
  - Continuously improve production efficiency, install new energy-saving equipment, and switch to high-performance machinery
  - Visualizing emissions at each plant by introducing a CO<sub>2</sub> emissions calculation cloud service
  - Introduction of renewable energy
- Participation in GX League led by METI

# Sustainability concepts and initiatives

## Social : Human Capital



### Policy

- Each individual should be aware of his or her own value and make efforts to improve corporate value.
- Let's accept each other's diversity and create a motivated team.
- Play your part by improving quality of life and operating margin (added value)

- In recent years, we have actively recruited mid-career employees in addition to new graduates. As a result, employees with diverse backgrounds are utilizing their knowledge and experience in their respective fields of expertise to promote their work and contribute to the improvement of corporate value.
- We regard human resources as our most important management resource and have adopted the above policy for our employees in order to achieve sustainable growth. Under this policy, we aim to further enhance corporate value by building teams that can quickly respond to changes in the environment and appropriately deal with difficult issues.

### Initiatives to Develop Human Resources and Improve Internal Environments

- **Human Resources Development Program**
  - New employee training and follow-up training
  - Human Resources Development 3-year plan
  - E-Learning
- **Employee benefit cafeteria plan**
  - As asset formation support,
    - Employer-sponsored Shares associations
    - Corporate-type defined contribution pensions
    - Shares compensation plan
  - As support for capacity development and skill-up,
    - System to support doctoral school attendance
    - System to encourage taking TOEIC
    - English conversation learning support system
  - As a welfare plan,
    - Preferential use services for membership resort hotels
    - Community Mutual Insurance Services



# Sustainability concepts and initiatives

## Social : Contribution activities



### Educational support activities

We support educational activities to nurture the next generation of human resources in various ways with the aim of creating a better society.

### Community activities

We contribute to the development of local communities through our business activities, such as job creation and tax payments, mainly in the regions where we have business offices. We also make efforts to contribute through exchanges with neighboring communities.

### Major activities in the FY Feb2024

- Support for Yamanashi YMCA International Charity Run
- Donation to Yamanashi Midori Scholarship
- Open house events (company tours) for local schools
- Support for Robocon Yamanashi



# Sustainability concepts and initiatives



## Governance

### Policy

Under our management principles, we respect all of our stakeholders and strive to enhance Sheres owner value.

### Major initiatives

- **Development of sustainability promotion system**
  - Establishment of a Sustainability Committee with the aim of promoting activities to resolve issues related to the environment, society, and governance with the aim of balancing the sustainable development of society with the sustainable growth of the Company
  
- **Establishment of internal and external whistle-blower desks that can be used by all regular, part-time and temporary employees**
  - Establishment of internal and external reporting desks that can be used by all regular, part-time and temporary employees
  - Establishment and dissemination of rules
  - Training
  
- **Fair economic transactions**
  - Establishment of rules and regulations (prohibition of bid rigging and cartels, prevention of bribery and corruption, protection of intellectual property rights, protection of personal information and data security)
  - Conduct education and training to ensure the effectiveness of fair economic transactions



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# FY Feb 2024 : Full-Year Results

- Our business performance bottomed out in the 3rd quarter and has been on a recovery path since the 4th quarter.
- Although we recorded an operating loss for the first time since our listing, we are continuing to invest in R&D expenses and CAPEX for future growth.

(Millions of yen)

	Reference: FY Feb 2023	FY Feb 2024					full year	Gap against FY Feb 2023
		1Q	2Q	3Q	4Q			
Revenue	5,752	1,359	1,964	1,370	1,913	6,606	854	
Operating profit	537	- 48	- 40	- 541	- 351	- 983	- 1,520	
(Operating margin)	9.3%	- 3.6%	- 2.1%	- 39.5%	- 18.4%	- 14.9%	-	
R&D expenses	675	193	239	281	335	1,049	374	
CAPEX	1,355	979	278	452	325	2,035	679	
EBITDA *	893	46	211	- 315	-19	- 77	- 971	
(EBITDA margin *)	15.5%	3.3%	10.8%	- 23.0%	- 1.0%	- 1.2%	-	

\* EBITDA: Operating profit plus depreciation and amortization \* EBITDA margin ratio: EBITDA / revenue

# Variance analysis between forecasts and actual results

- Revenue was 6,606 million yen, a decrease of 2,166 million yen from the initial forecast of 8,773 million yen.
- Gross profit decreased by 1,669 million yen from the initial forecast of 3,554 million yen to 1,884 million yen. Approximately 1,500 million yen of this difference was attributable to one-off factors, such as the loss of profits and repair costs for parts due to a failure of a certain component in the Semiconductor business.

(Millions of yen)

	Original forecast April 2023 Disclosure	full year	Variance	Analysis of Differences
<b>Revenue</b>	<b>8,773</b>	<b>6,606</b>	<b>- 2,166</b>	
Semiconductor	4,978	3,140	- 1,837	Revenue decreased due to component failure
Healthcare	1,721	1,592	- 128	Shipments to major customers remained sluggish due to the impact of the economic slowdown in China and other factors.
Frontier Technology	2,073	1,874	- 198	Some large-scale projects for physical sciences and other applications postponed
<b>Gross profit</b>	<b>3,554</b>	<b>1,884</b>	<b>- 1,669</b>	Approx. – 1,500: Loss of profits due to failure of some components and repair costs of parts (including allowance for doubtful accounts)
<b>R&amp;D expenses</b>	<b>1,039</b>	<b>1,049</b>	<b>10</b>	
<b>SG&amp;A</b>	<b>2,039</b>	<b>1,817</b>	<b>- 221</b>	Lower stock compensation expense for Raicol, lower goodwill amortization, etc.
<b>Operating profit</b>	<b>471</b>	<b>- 983</b>	<b>- 1,454</b>	

# FY Feb 2025 : Forecast

- Revenue is expected to increase by 1,946 million yen year on year, for a full year total of 8,553 million yen.
- We expect to achieve an operating margin of 2.4%.
- EBITDA margin is expected to be 14.7%.

(Millions of yen)

	FY Feb 2024	FY Feb 2025					full year	Gap against FY Feb 2024
		1Q	2Q	3Q	4Q			
Revenue	6,606	1,514	1,968	2,446	2,623	8,553	1,946	
Operating profit	- 983	- 270	8	199	265	202	1,185	
(operating margin)	- 14.9%	- 17.8%	0.4%	8.1%	10.1%	2.4%	-	
R&D expenses	1,049	354	363	376	374	1,469	419	
Capital expenditures	2,035					1,464	- 571	
EBITDA *	- 136	- 16	268	467	538	1,259	1,395	
(EBITDA margin *)	- 2.1%	- 1.1%	13.6%	19.1%	20.5%	14.7%	-	

\* EBITDA: Operating profit plus depreciation and amortization \* EBITDA margin ratio: EBITDA / revenue

# Management Indicators

■ Since our listing, we have focused on revenue growth rate and operating margin as our management indicators.

Revenue has reached a certain level after the acquisition of Raicol, and we are now more conscious of profitability and efficiency.

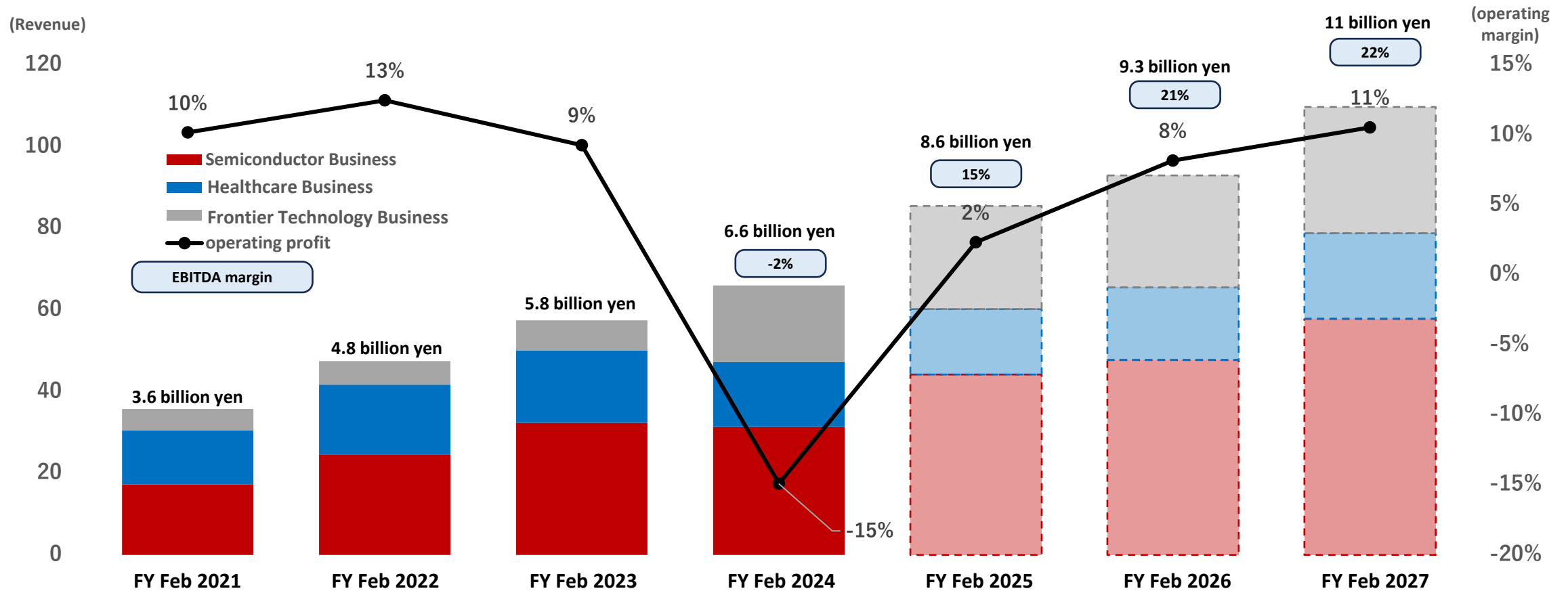
In order to advance business operations, we will set operating margin and EBITDA margin as our key management indicators from this fiscal year.

■ The targets for these two measures are an operating margin of 10% and an EBITDA margin of 20%.

Management Indicators	Target	Reason for selection
Operating Margin	10%	As this is a widely used indicator for business analysis in the Japanese manufacturing industry, we use the operating income margin as a management indicator.
EBITDA Margin	20%	As an indicator of cash generation, EBITDA margin is widely used in comparisons with domestic and overseas companies, and is used as a management indicator.

# Mid-term management objectives(FY Feb 2025 to FY Feb 2027)

- For the FY Feb 2027, we expect revenue of approximately 11 billion yen, an operating margin of 11%, and an EBITDA margin of 22%.
- Our initiatives will focus on contributing to revenue and operating profit through a V-shaped recovery in the semiconductor business, accelerating R&D in the quantum field and other fields, and accelerating the development of mass production of SiC.





# Mid-term management objectives: Changes from April 2023 disclosure

■ ■ According to the plan disclosed in April 2023, revenue were 11.3 billion yen and the operating margin was 9% in the FY Feb 2025.

However, by further improving profitability, the new plan calls for revenue of 11 billion yen and an operating margin of 11% in the FY Feb 2027.

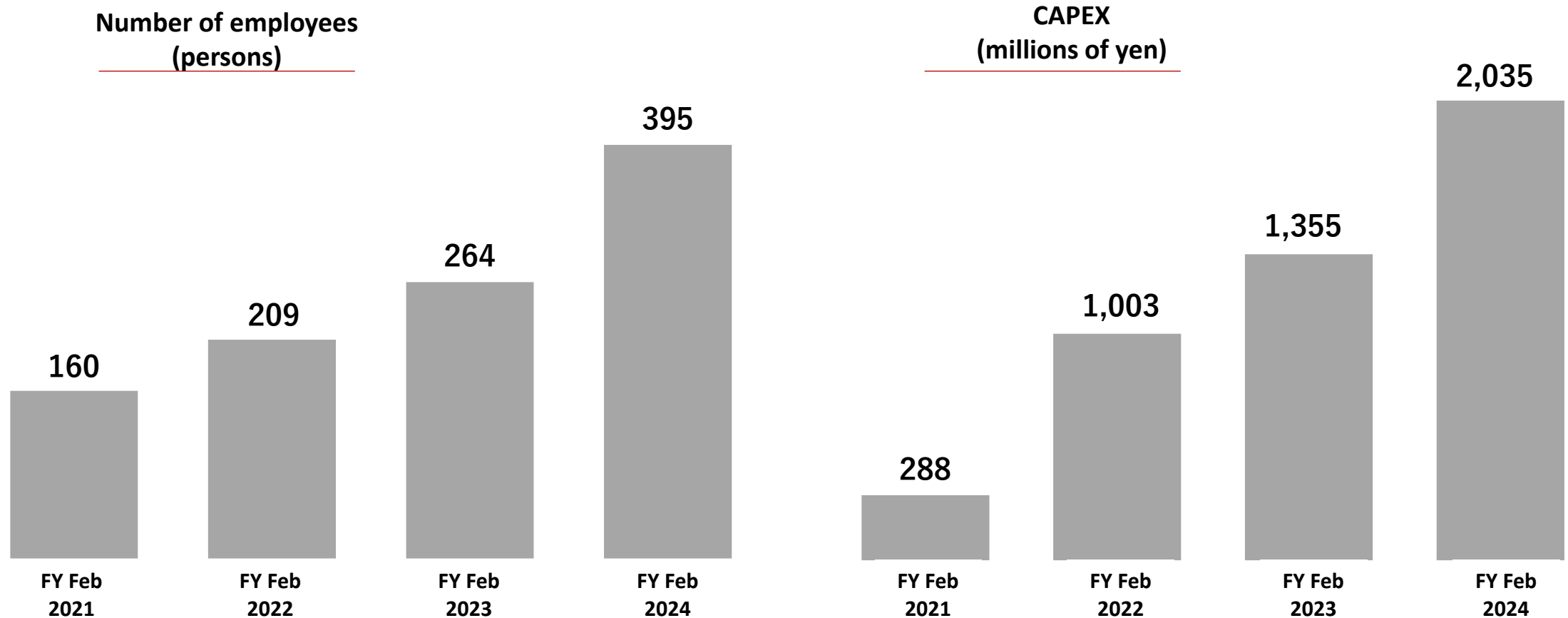
■ ■ The main changes in each business are as follows:

- Semiconductor: Due to component problem, we were unable to achieve the original plan for the FY Feb 2024, but we expect a recovery in revenues from the FY Feb 2025. Because it will take some time to expand the second vendor component production capacity, the plan calls for a review of the progress of Revenue.
- Semiconductor: We expect to improve profitability by switching from a low-yield first vendor to a high-yield second vendor.
- Healthcare: Based on discussions with customers and market trends, we expects revenue for Brain PET scanners to grow more moderately than the initial plan.
- Frontier Technology: In light of the Israeli conflict, future risks have been incorporated into Raicol revenues.
- Frontier Technology: We newly expect that the new business development of Raicol at energy field will be slower than initially planned in light of market trends.

	FY Feb 2023	FY Feb 2024	FY Feb 2025	FY Feb 2026	FY Feb 2027
<b>Revenue(0.1 billion yen)</b>					
Disclosed in April 2023	58	88	113	136	
Disclosed in April 2024	58	66	86	93	110
<b>Operating margin (%)</b>					
Disclosed in April 2023	9%	5%	9%	12%	
Disclosed in April 2024	9%	-15%	2%	8%	11%

# [Number of Employees] [CAPEX]

- The number of employees as of the end of February 2024 was 395, compared to the initial forecast of 424, taking into account the business environment.
- We continue to make aggressive CAPEX to increase production, with an initial forecast of 2,684 million yen for the FY Feb 2024, which was partially extended to the FY Feb 2025, resulting in an actual investment of 2,035 million yen.

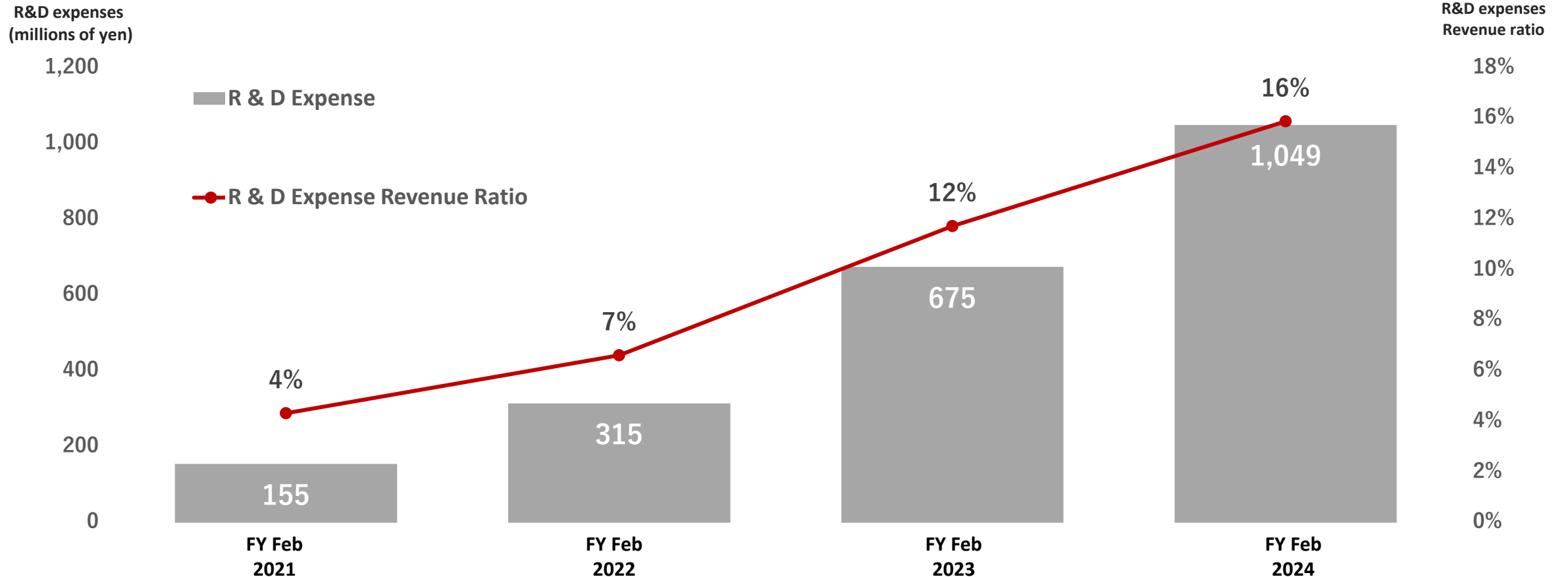


# [R&D expenses]

R&D expenses for the FY Feb 2024 were 1,049 million yen, compared with the original estimate of 1,039 million yen.

The ratio of R&D expense revenue was approximately 16%.

We strengthened our R&D activities, mainly in the semiconductor business and power semiconductor related fields, with a view to future growth.



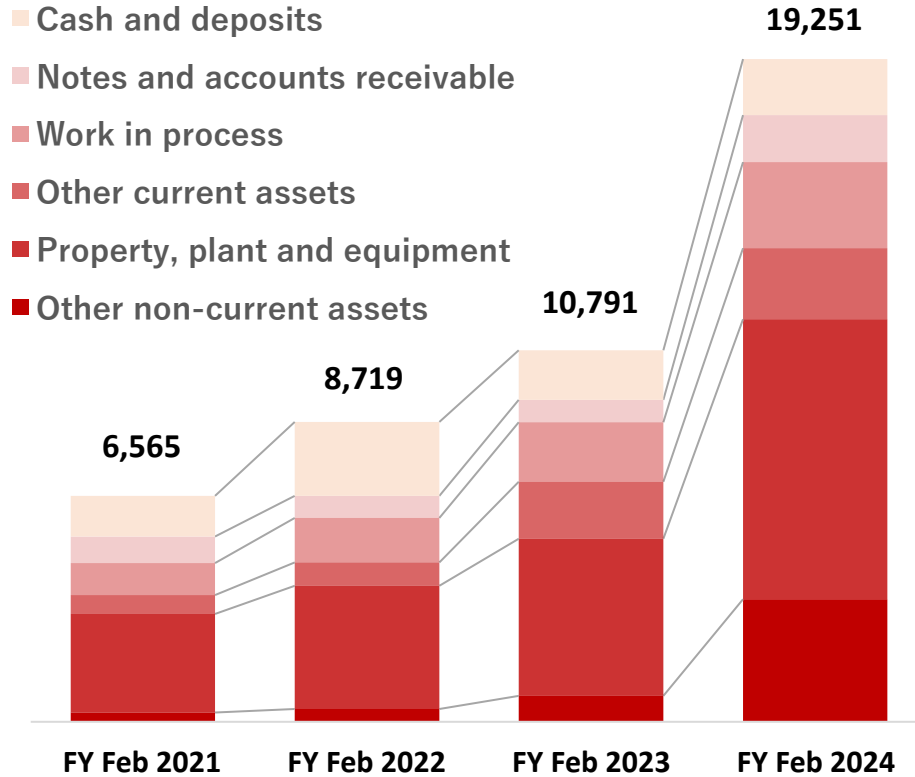
# [Balance sheet]

■ Total assets increased by 8,460 million yen due to the acquisition of Raicol and CAPEX.

■ We conducted the third party allotment to KLA in January 2024, and the equity ratio increased to approximately 40%.

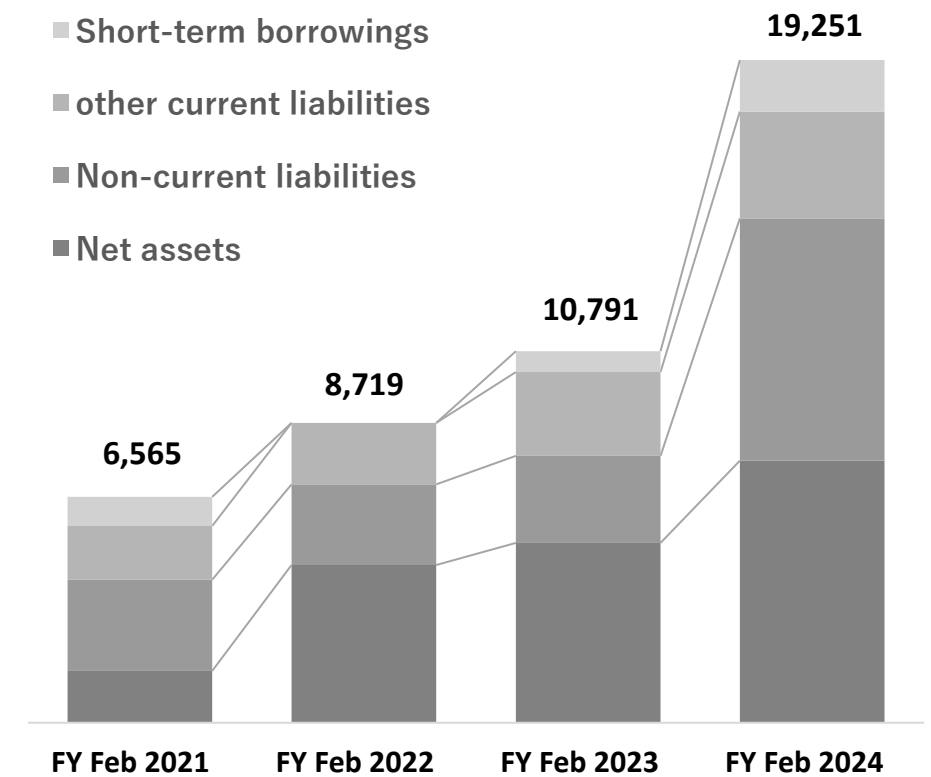
## Assets

(Unit: millions of yen)



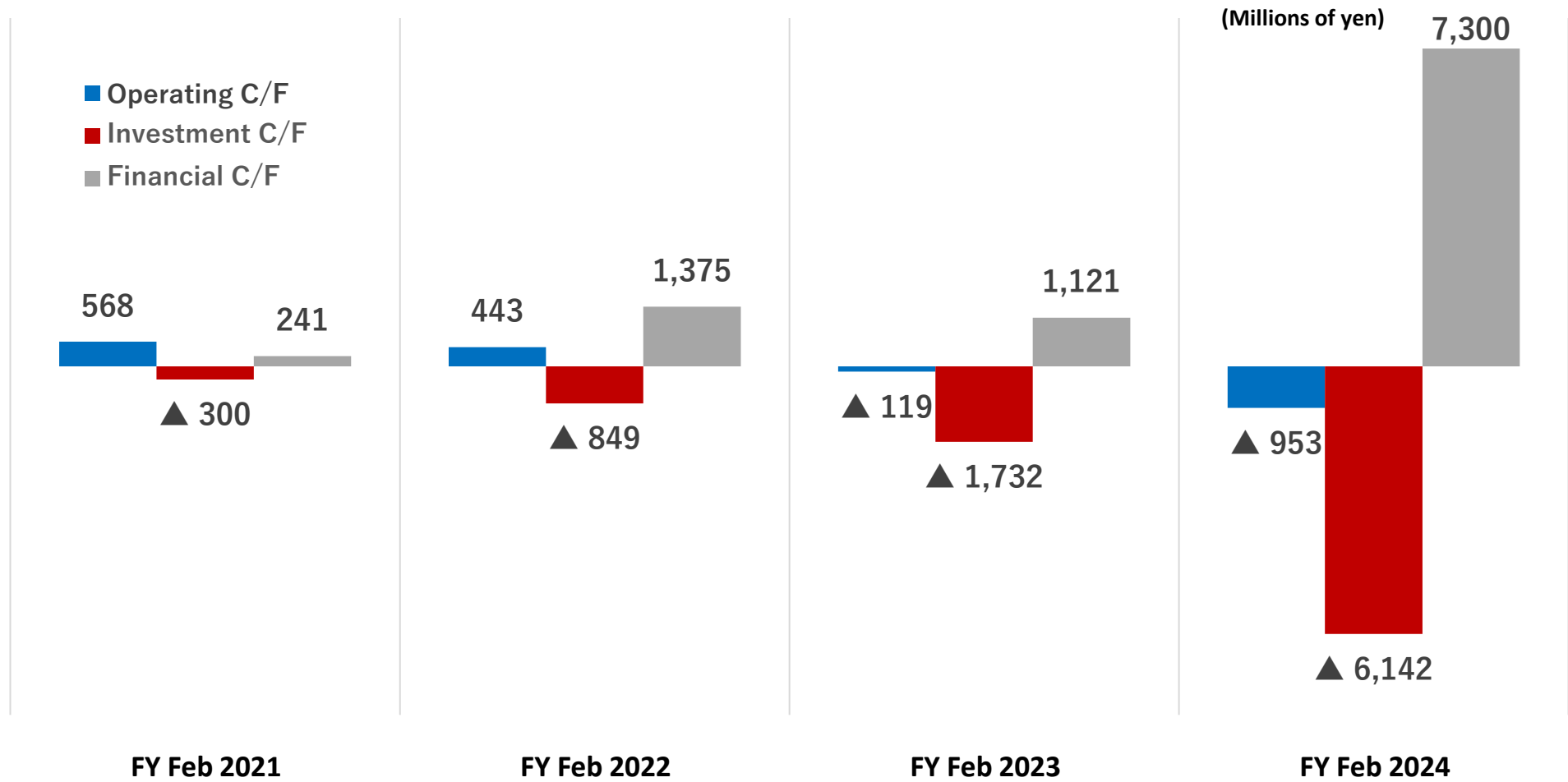
## Liabilities and net assets

(Unit: millions of yen)



# [Cashflow]

■ To cover the losses in the operating C/F and investment C/F, we borrowed from financial institutions and conducted the third party allotment as a financing cashflow.



# Use of proceeds Provided by IPO

■ The appropriation of the proceeds from the issuance of new shares at the time of initial public offering was completed in the FY Feb 2024.

(Millions of yen)

Use of funds	Planned allocation amount	Timing and amount of appropriation		
		FY Feb 2022	FY Feb 2023	FY Feb 2024
No. 3 Plant	500	500	-	-
No. 4 Plant	1,223	0	334	889
Repayment of borrowings	613	0	0	613
<b>Total</b>	<b>2,336</b>	<b>500</b>	<b>334</b>	<b>1,502</b>

# Risk Factors (1)

We consider the following to be particularly significant risks that could hinder the growth of our business.

Risks associated with customer trends					
Probability	High	Impact	Large	Risk assessment / Change from previous year	Particularly important / Same level
Risk Details	The customer base of the Group has expanded to include manufacturers of medical devices, semiconductors, Lasers, and other products from all over the world. By conducting business in a wide range of industrial sectors, the Company is making efforts to minimize the impact of changes in the individual business conditions of these customers. However, significant currency exchange rate fluctuations and geopolitical factors may adversely affect the performance of these industries as a whole. Demand for finished goods offered by the Group is always in line with the trend of upfront investment in the development of next-generation finished goods. Therefore, delays in next-generation investment and the transition to finished goods by client companies could have a negative impact on the Group's financial position and business performance.				
Countermeasures	Because the Group's strength lies in providing products to a wide range of industrial sectors, including medical devices, semiconductors, and Lasers, the Group will strive to diversify risks by further strengthening its business portfolio, which does not depend on any specific industry, against changes in economic trends in Japan and overseas.				

Risk of dependency on specific customers					
Probability	High	Impact	Large	Risk assessment / Change from previous year	Particularly important / Same level
Risk Details	In the FY Feb 2024, the Group sold products to more than 300 companies, of which approximately 70% was to six specific customers. Accordingly, if the business policies or outsourcing policies of these business partners change, or if their business performance deteriorates, the Group's financial position and business performance may be affected in the event that the amount of transactions with the Group decreases.				
Countermeasures	The Group continues to reorganize its client portfolio and clarify its key clients in order to achieve its business plan and future growth. In the FY Feb 2024, the ratio of revenues from the six specified business partners to total revenues decreased by 18.0 points year on year. While expanding revenues to the six specified business partners, the Company aims to further expand revenues for Other's key customers by continuously creating markets for new uses, entering markets, and developing new customers, and to expand overall revenues while reducing the risk of dependence on specific business partners.				

## Risk Factors (2)

### Risks from material procurement

Probability	High	Impact	Large	Risk assessment / Change from previous period	Particularly important / Elevated
Risk Details	<p>The Group purchases and uses a variety of raw materials and optical components, including special raw materials and components. We are making efforts to ensure stable production and supply of important products by purchasing from multiple vendors and building up inventories. However, there are some products that cannot be replaced. In particular, the Group procures Lutetium Oxide from China, which is used to manufacture scintillator Single crystals in the Healthcare Business, and other countries, including China and Australia. Accordingly, any procurement problems arising from China's national policy or other reasons could impede the Group's production plans and adversely affect the Group's financial position and business performance. Furthermore, the Group is only limited in the number of companies in Japan and overseas that can manufacture certain Lasers components, which are the Group's principal products, with the quality required by the Group. Therefore, an opportunity loss may occur if the Group is unable to secure supplies of these components. Also, if we are unable to secure parts and materials that meet quality standards, this could lead to a deterioration in the yield ratio. If we are unable to pass on the resulting increase in raw material costs to our sales prices, this could have an impact on the Group's operating results.</p>				
Countermeasures	<p>We are making efforts to ensure stable production and supply by purchasing from multiple vendors, grasping market trends at an early stage through trading companies, and taking measures such as building up inventories. For key components and materials for which the supplier is limited, we will strengthen cooperation through careful coordination with suppliers, revise procurement specifications, and regularly monitor the status of purchases, thereby promoting initiatives to secure a stable supply chain.</p>				

### Risks from fluctuations in raw material prices

Probability	High	Impact	Large	Risk assessment / Change from previous period	Particularly important / Same level
Risk Details	<p>Among the raw materials used in the manufacturing of the Group, the Company uses Lutetium Oxide, a rare earth element, in the manufacturing of scintillator Single crystals in the Healthcare Business. Rare earth prices fluctuate widely, and if the Group is unable to pass on price fluctuations to sales prices, the Group's financial position and business performance may be adversely affected.</p>				
Countermeasures	<p>The Company has established a system in which the Executive Committee and the Board of Directors strive to grasp price trends of rare earths and make management decisions, such as bringing forward the purchase of raw materials, without delay if they detect signs of price fluctuations. We are also constructing a system to pass on increases in raw material prices to sales prices.</p>				



# Risk Factors (3)

Risks associated with overseas business development					
Probability	High	Impact	Large	Risk assessment / Change from previous period	Particularly important / Elevated
Nature of risk	<p>The group conducts commercial transactions with foreign countries mainly for the procurement of materials and parts and the export of finished goods. Overseas sales accounted for more than 80% of total revenue for the fiscal year under review. The Group's principal sales country is the United States. However, there is an expectation that business with China and other Asian countries will increase in the future. Accordingly, the Group's operating results could be affected in the event that risks materialize in the countries where the Group has business connections, such as unforeseen rapid changes in taxation systems, laws and regulations, confusion in political and economic situations, the outbreak of terrorism, conflicts, or natural disasters. In particular, the Group's operating results could be affected by the deterioration of U.S. - China relations due to trade friction between the United States and China, which could make it difficult to ship finished goods to China. In addition, Raicol Crystals, consolidated subsidiaries of the Company, has its head office and manufacturing plant in Rosh HaAyin, central Israel. Since the armed conflict on October 7, 2023, the Israeli government has been politically and economically unstable. However, there have been no reports of serious impacts on the safety of Raicol employees or damage to its manufacturing facilities. However, there are concerns about the impact of further expansion of the conflict between the Israelis and Palestinians, which could delay Raicol's manufacturing plans and affect the Company's management strategies.</p>				
Countermeasures	<p>The Company monitors the business situation on a regular basis, and reviews business strategies on a regular basis in consideration of risks associated with changes in the international situation and overseas economic conditions, etc. In addition, the Company endeavors to grasp the situation in the target regions for sales at the Executive Committee and the Board of Directors meetings, etc., and appropriately responds to changes in the situation.</p> <p>Situation in Ukraine The Group has no business bases in Russia or Ukraine, and does not conduct business in these regions. It is our understanding that the Asia-Pacific Economic Cooperation business does not account for a large proportion of the Group's major customers. Accordingly, the Company judges that the situation in Ukraine is unlikely to have a significant impact on the Group's business and financial results at this point.</p>				

Goodwill impairment risk					
Probability	Medium	Impact	Large	Risk assessment / Change from previous period	Important / -
Nature of risk	<p>The Company acquired shares of Raicol in March 2023 and the company is now a consolidated subsidiary. Goodwill arose as a result of this acquisition, but in the event that the Group's excess earnings power declines significantly, for example, because earnings fall short of the plan at the time of acquiring Shares, the Group may record an impairment loss for Goodwill, affecting the Group's earnings results.</p>				
Countermeasures	<p>In making decisions on corporate acquisitions, the Company's Board of Directors makes decisions after sufficient deliberation, based on a multifaceted and company-wide perspective on matters such as consistency with business strategies, market trends, business risks, the amount of investment, and the appropriateness of the investment plan. After the acquisition, the Company has strengthened cooperation by holding strategic meetings in each division, such as technology and marketing, on a regular basis, and has also worked to mitigate risks by developing a management and business promotion system through the participation of the Company's officers and employees in the management as part of the Raicol Board of Directors.</p>				

# Risk Factors (4)

Risks related to currency fluctuations					
Probability	Medium	Impact	Large	Risk assessment / Change from previous period	Critical / Elevated*
Nature of risk	<p>The Group enters into certain overseas transactions in currencies other than Japanese yen. Sharp fluctuations in the value of these currencies could have an impact on the Group's business. In addition, Raicol uses the Israeli new shekel as the local currency for its financial statements, and rapid fluctuations in that currency could have a negative impact on the Group's financial position and business performance.</p> <p>* In the case of the Company's overseas transactions, the yen's depreciation tends to increase profits, so the recent yen's depreciation has a positive impact on business results. However, the risk level in terms of the impact of unstable exchange rates on the business has not decreased, so it is judged to be at the same level compared to the previous term. On the other hand, the assets and liabilities of Raicol, in particular, Revenue and Profit / Loss, are affected by fluctuations in local currencies, so the Company assesses that risks have increased compared to the previous term.</p>				
Countermeasures	<p>The Group's transactions with major overseas customers are conducted in yen. In addition, the Executive Committee and the Board of Directors strive to understand foreign exchange trends, and have established a system for making management decisions without delay if any signs of adverse effects on the financial position or business performance are detected. In addition, Raicol, a consolidated subsidiary, will continue to manage its risks appropriately in line with its risk hedging policies and work to mitigate those risks.</p>				

**For other risks, please refer to “Business and Other Risks” in the OXIDE Corporation securities report.**

# Disclaimer

- ❑ These materials contain forward-looking statements related to the Company's outlook, plans, objectives, and other matters. These forward-looking statements are based on judgments formed by the management of the Company that were derived from the information available to it at the time these materials were created, and incorporate certain assumptions (hypotheses). Accordingly, these assumptions (hypotheses) may be affected by a variety of risks and uncertainties, and actual results may differ significantly from those expressed or implied in the materials.
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- ❑ The next Business Plan and Matters Related to Growth Potential is scheduled to be published in April 2025.

A close-up image of a microchip with intricate circuitry.

Semiconductor

A stylized illustration of a human torso showing internal organs like the heart and lungs in a glowing blue and red color scheme.

Healthcare

A white electric car parked at a charging station with a charging cable plugged in.

Power  
Semiconductor

# Contributing to Society with Crystals and Light Crystal Miracles by OXIDE

A smartphone with a colorful screen displaying various icons.

Display

A modern car dashboard with a digital display and various control buttons.

Autonomous  
Driving

A hand holding a smartphone with various digital icons like a globe, lightbulb, and shopping cart overlaid on the screen.

5G