

**Fiscal Year Ending
March 2023**

FINANCIAL RESULTS BRIEFING

2023.5.26

日本電子株式会社

JEOL Ltd.



Becoming a top niche company supporting science and technology around the world

Company Philosophy

On the basis of "Creativity" and "Research and Development", JEOL positively challenges the world's highest technology, thus forever contributing to the progress in both Science and Human Society through its products.

Vision

“Evolving in the 70th Year”

Accelerate business expansion and achieve even higher profitability based on our unique technologies and human networks which have been developed since the company's founding.

Mid-Term Management Plan “Evolving Growth Plan”

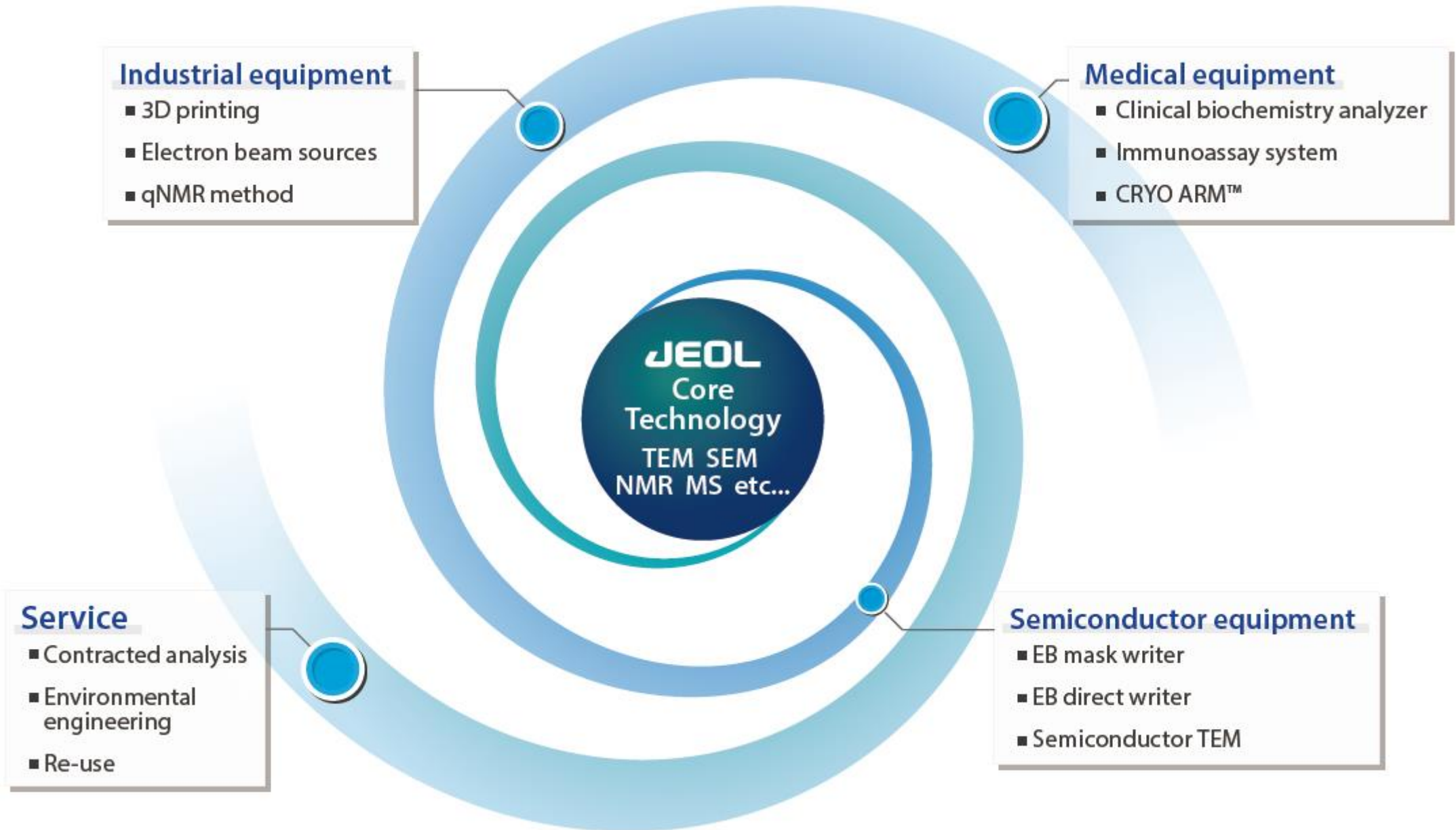
We aim to improve customer satisfaction by enhancing our R&D, manufacturing, and service capabilities.

▶ YOKOGUSHI ◀

Promote Innovation by co-creation

Growth vision of “Evolving in the 70th Year” remains unchanged

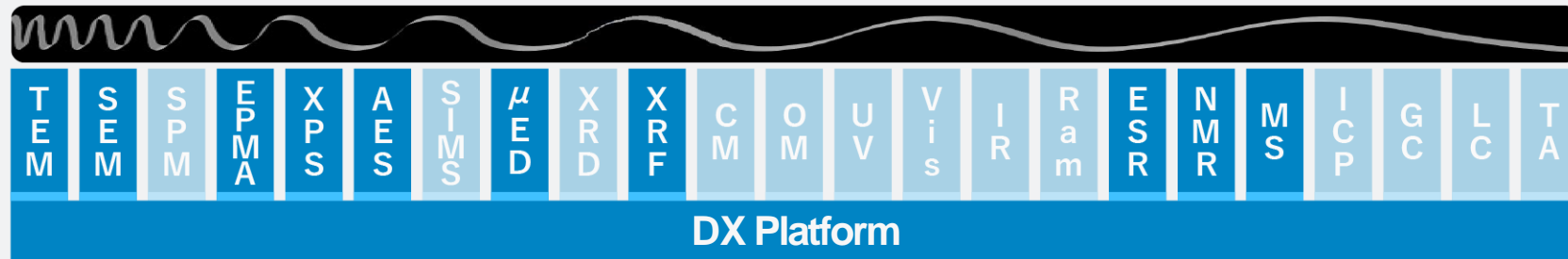
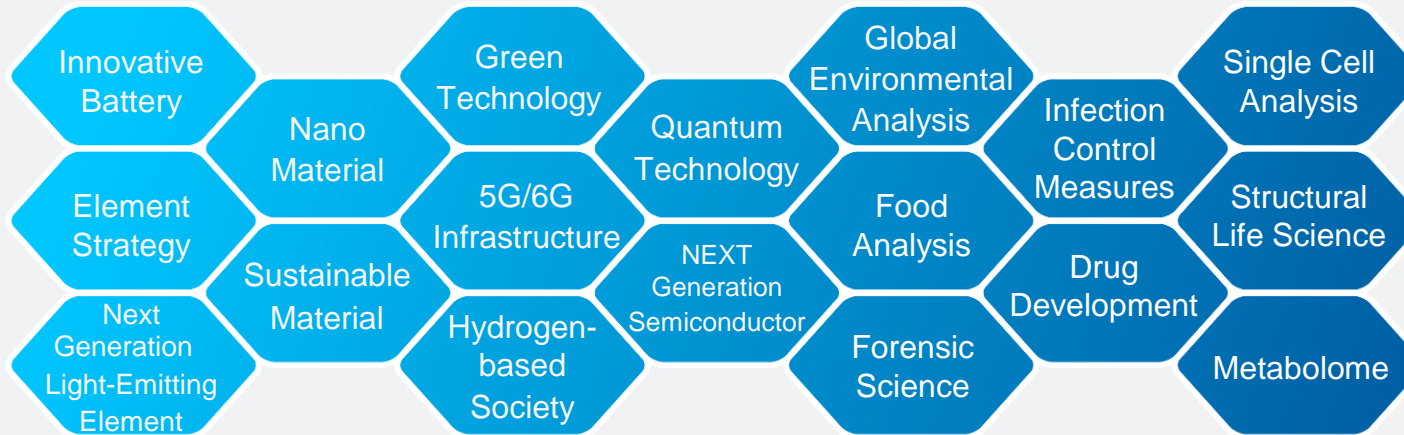
- Expand business scale and achieve higher profitability



Strengthen and develop YOKOGUSHI Strategy

- Improve and strengthen for higher profitability

YOKOGUSHI

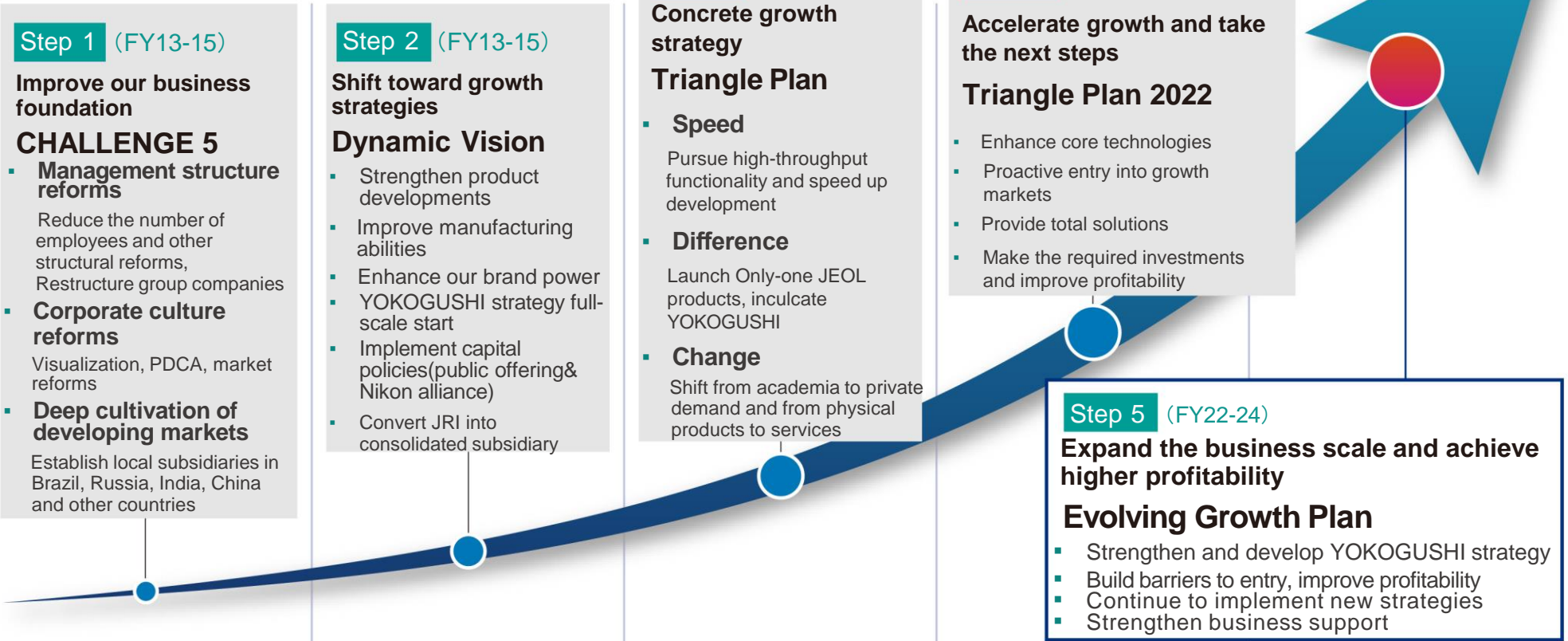


Solutions



Mid-Term Management Plan “Evolving Growth Plan”(FY 2022-2024)

Mid-Term Management plans since FY 2010



Net Sales/Operating Profit Transition



Summary

Evolving Growth Plan

Accelerate business scale expansion and achieve higher profitability by further implementing the “Evolving in 70th Year”

FY2022 Result

Recorded the highest sales and profit
Achieved the numerical targets for the first year of Mid-Term Management Plan, “Evolving Growth Plan”

Semiconductor market softening

Multi-beam mask lithography systems were affected by the recent softening of the semiconductor market. On the other hand, single beam mask lithography systems continue to be strong due to demand for power semiconductor devices.

FY2023 Forecast

Net sales 167 billion yen, operating profit 21 billion yen
ordinary profit 21.5 billion yen, net profit 15.5 billion yen

Mid-Term Management Plan Evolving Growth Plan -Initiatives

1. Build barriers to entry and improve profitability
2. Expand business in growing markets such as semiconductors, drug discovery, batteries, etc.

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4. Summary

1. FY 2022 Result and FY 2023 Full-Year Forecast



FY2022 Results (P/L)

- Consolidated net sales 162.7 billion yen, Operating profit 24.2 billion yen, Ordinary profit 23.5 billion yen, Net profit 17.8 billion yen

Consolidated figures (P/L)			(100 million JPY)
	FY21 Full Year Result (1)	FY22 Full Year Result (2)	Year-on-Year (2)-(1)
1 Net sales	1,384	1,627	243
2 Sales cost	830	900	69
3 (Cost rate)	60.0 (%)	55.3 (%)	Δ4.6 (%)
4 Gross profit	554	727	173
5 SGA	327	382	55
6 R&D cost	85	104	19
7 SGA total	412	485	73
8 Operating profit	141	242	100
9 Non-operating income	24	8	Δ16
10 Non-operating expenses	3	15	12
11 Ordinary profit	163	235	72
12 Extraordinary income	4	10	6
13 Extraordinary loss	1	8	7
14 Net profit before tax	167	237	71
15 Corporate taxes	44	59	15
16 Net profit	123	178	56
Exchange rate (1\$=)	¥113	¥135	
Exchange rate (1€=)	¥131	¥141	

Factors for fluctuating ordinary profit (year-on-year)

(100 million JPY)	
(A) Positive factor	173
1. Exchange margin (yen depreciation)	102
2. Improved cost rate, etc.	36
3. Sales volume increase	35
(B) Negative factor	Δ73
1. Increased SGA	Δ55
2. Increased R&D cost	Δ19
(A)+(B)	100

FY2023 Forecast (P/L)

- Consolidated net sales 167 billion yen, Operating profit 21 billion yen, Ordinary profit 21.5 billion yen, Net profit 15.5 billion yen

Consolidated figures (P/L)

	FY21 Full Year Result	FY22 Full Year Result (1)	FY23 Full Year Result (2)	(100 million JPY) Year-on-Year (2)-(1)
1 Net sales	1,384	1,627	1,670	43
2 Sales cost	830	900	957	57
3 (Cost rate)	60.0 (%)	55.3 (%)	57.3 (%)	2.0(%)
4 Gross profit	554	727	713	△14
5 SGA	327	382	394	12
6 R&D costs	85	104	109	5
7 SGA total	412	485	503	17
8 Operating profit	141	242	210	△31
9 Non-operating income	24	8	5	△4
10 Non-operating expenses	3	15	0	△15
11 Ordinary profit	163	235	215	△20
12 Extraordinary income	4	10	0	△10
13 Extraordinary losses	1	8	1	△7
14 Net profit before taxes	167	237	214	△23
15 Corporate taxes	44	59	59	0
16 Net profit	123	178	155	△23
Exchange rate(1\$=)	¥113	¥135	¥130	
Exchange rate(1€=)	¥131	¥141	¥140	

Factors for fluctuating ordinary profit
(year-on-year)

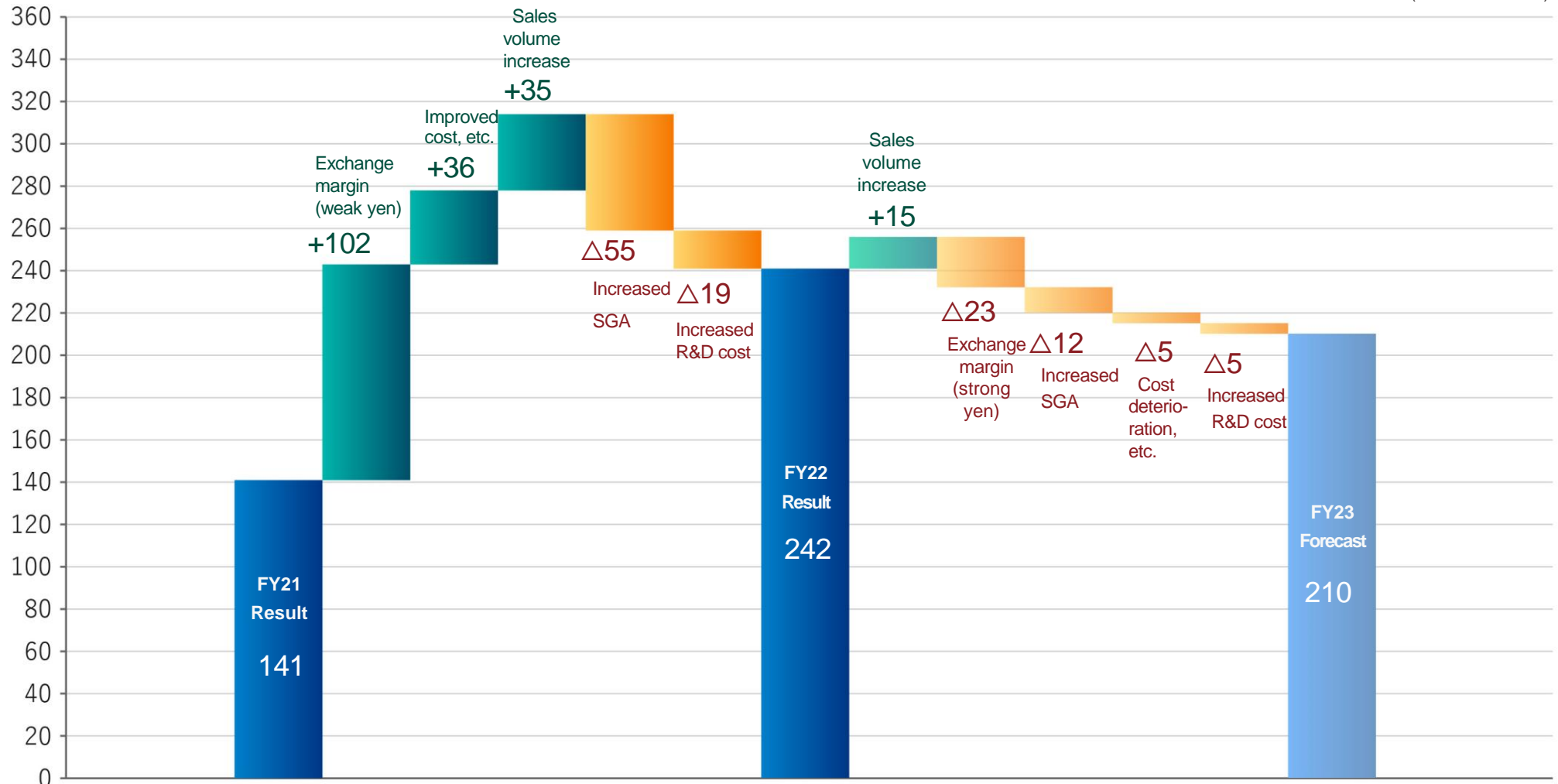
(100 million JPY)	
(A) Positive factor	15
1. Sales volume increase	15
(B) Negative factor	△46
1. Exchange margin (yen appreciation)	△23
2. SGA increase	△12
3. Cost deterioration, etc.	△5
4. R&D cost increase	△5
(A)+(B)	△31



Factors of Increase/Decrease in Profit

Ordinary profit analysis

(100 million JPY)



Transition of Consolidated Sales & Operating Profit by Segment (Full-year)

(100 million JPY)

		FY2021 Full-year result	FY2022 Full-year result	FY2023 Full-year forecast
Company Total	Net sales	1,384	1,627	1,670
	Operating profit	141	242	210
	Ordinary profit	163	235	215
	Net profit	123	178	155
Scientific/Metrology Instruments	Net sales	851	948	1,048
	Operating profit	48	58	68
Industrial Equipment	Net sales	340	495	455
	Operating profit	131	233	200
Medical Equipment	Net sales	193	184	167
	Operating profit	11	5	2
Company Total	Expense	49	54	60
Exchange rate(1\$=)		¥113	¥135	¥130
Exchange rate(1€=)		¥131	¥141	¥140

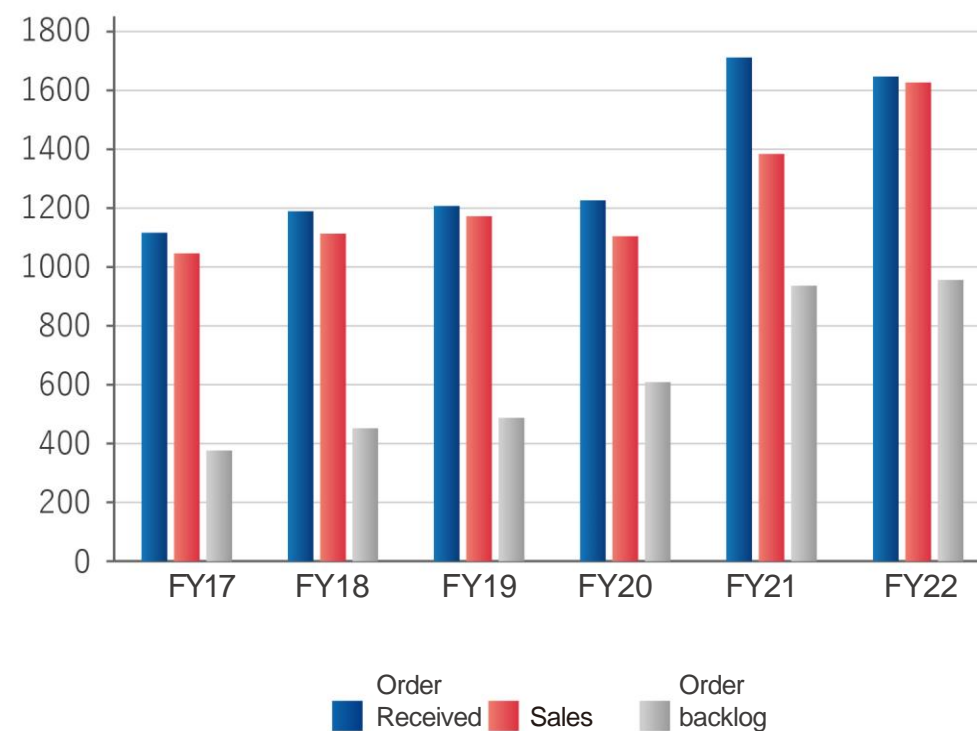
Change in Major Accounts

(100 million JPY)

(Consolidated)	FY21 Full-year result	FY22 Full-year result	FY23 Full-year forecast
1 Inventory	591	688	678
2 Interest-bearing debt	166	115	65
3 Total assets	1,896	1,993	2,050
4 Net assets (capital-to-asset)	859(45.3%)	1,019(51.1%)	1,140(55.6%)
5 Dividend(JPY)	50	66	66
6 Capital investment	69	36	50
7 Depreciation cost	41	47	48
8 Consolidated Orders received	1,712	1,647	1,700
9 Consolidated Order backlog	936	956	986
10 Overseas sales ratio	63.4%	70.7%	67.0%
11 ROE	17.9%	19.0%	14.4%

Transition of Consolidated Orders, Sales and Backlog

(100 million JPY)



Business Environment

- Orders of scientific/metrology instruments continue to be strong. Semiconductor market is in an adjustment phase.

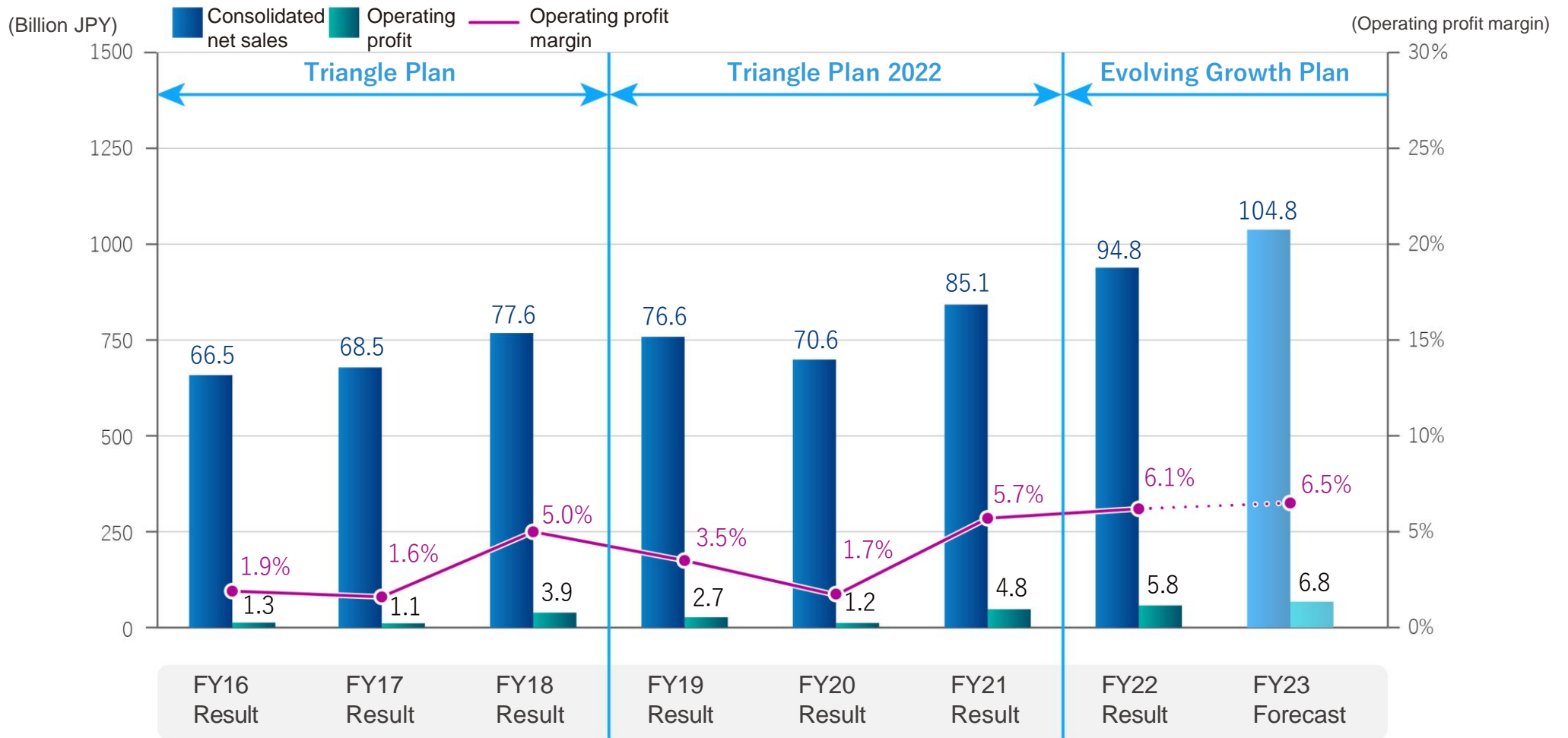
		Overview	
Scientific and Metrology Instruments	University and Governmental Demand	○ (Favorable)	<ul style="list-style-type: none"> Governments continue to invest in science and technology Chinese market is active due to special demand from Chinese low-interest financing policy Steady inquiries in Europe and USA
	Private Demand (Semiconductor)	○ (Good)	<ul style="list-style-type: none"> Steady inquiries of TEM, especially in Taiwan, Korea and China Increasing need for electron microscopes (TEM, SEM, EPMA) due to miniaturization and complexity
	Private Demand (other industries)	○ (Good)	<ul style="list-style-type: none"> Overall, capital investment is active. R&D investment for next-generation batteries continue to be strong
Industrial Equipment	Lithography System Market	○ (Mixed)	<ul style="list-style-type: none"> Multi-beam mask writer is weak because of semiconductor market being in adjustment phase Single beam mask writer for legacy node is active, due to demand for power semiconductor devices
	EB Source Market	△ (Slow)	<ul style="list-style-type: none"> Weak inquiries for deflector e-beam source due to weakened demand of smartphones
Medical Equipment	Japan	○ (Good)	<ul style="list-style-type: none"> Demand of biochemistry analyzer is increasing, mainly for test centers.
	Overseas Market	△ (Slow)	<ul style="list-style-type: none"> Inquires/orders decreased due to lockdown in China, and others.

2. Performance of each business

2-1. Scientific/metrology instruments

Sales and OP transition in Scientific and Metrology Instruments

Consolidated Net Sales/Operating Profit Transition

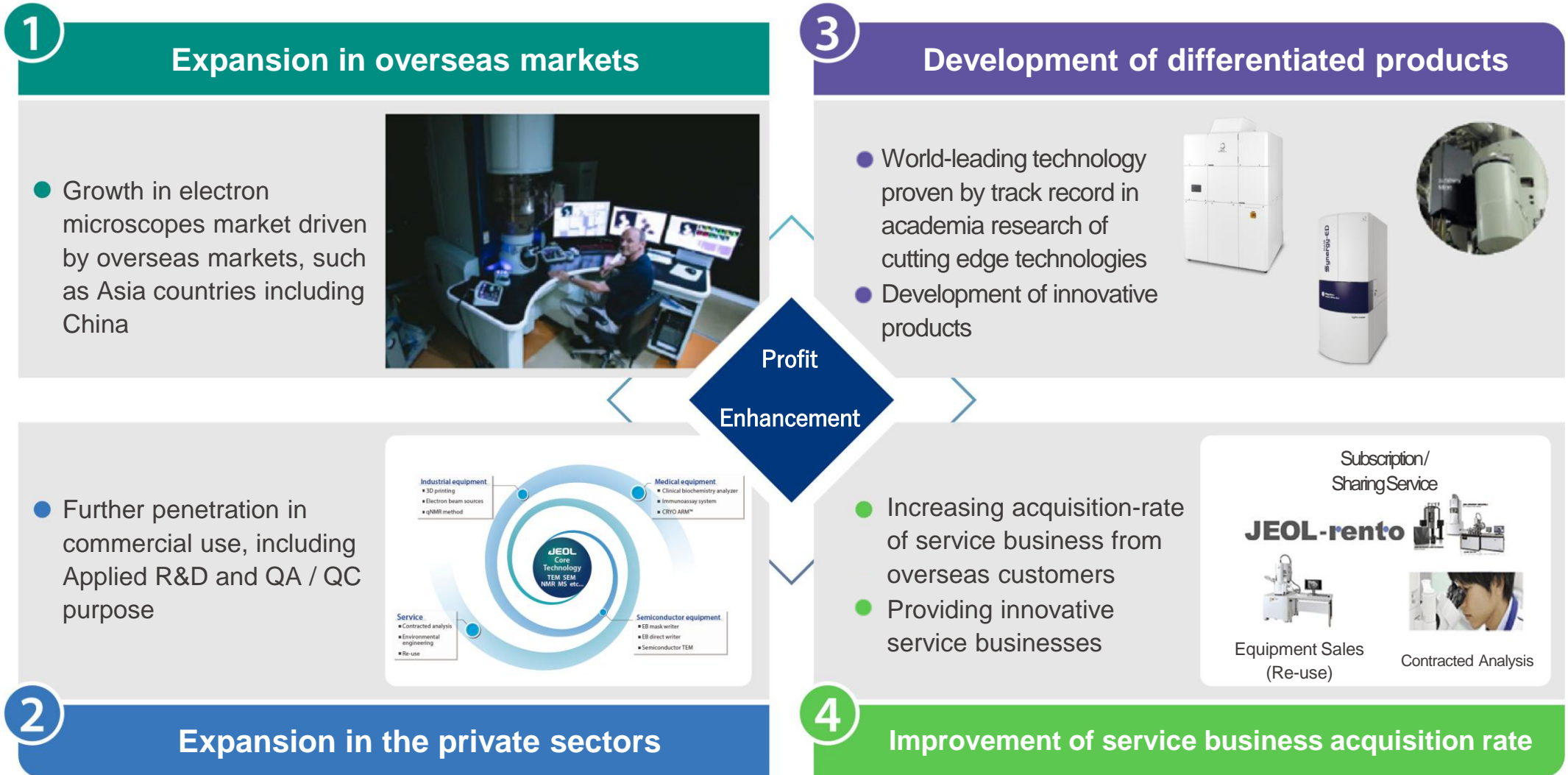


Exchange rate(1\$= Yen)

¥ 109 ¥ 111 ¥ 111 ¥ 109 ¥ 106 ¥ 113 ¥ 135 ¥ 130

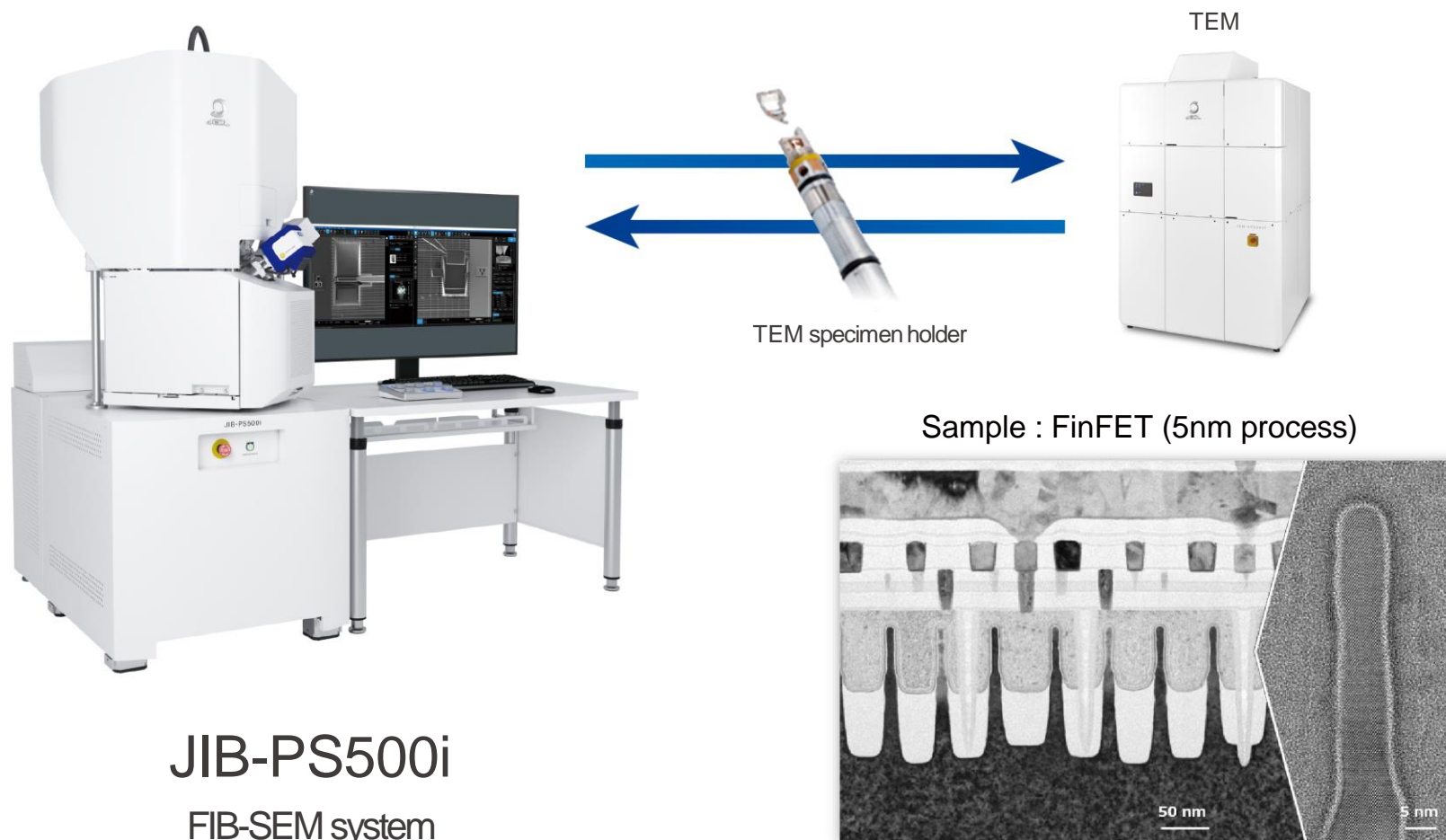
Scientific and Metrology Instrument

- Continue efforts for profit enhancement through further development of Scientific and Metrology Instruments, such as electron microscopes



New FIB-SEM System "JIB-PS500i"

- FIB (Focused Ion Beam) is an instrument that irradiates a focused ion beam onto a sample for milling and observation and can cut out structures at desired locations inside the sample. It is a necessary instrument for R&D and quality control of semiconductors and advanced materials, which have been actively developed in recent years.
- JIB-PS500i provides solutions to assist TEM specimen preparation with high throughput workflow from specimen preparation to TEM observation.

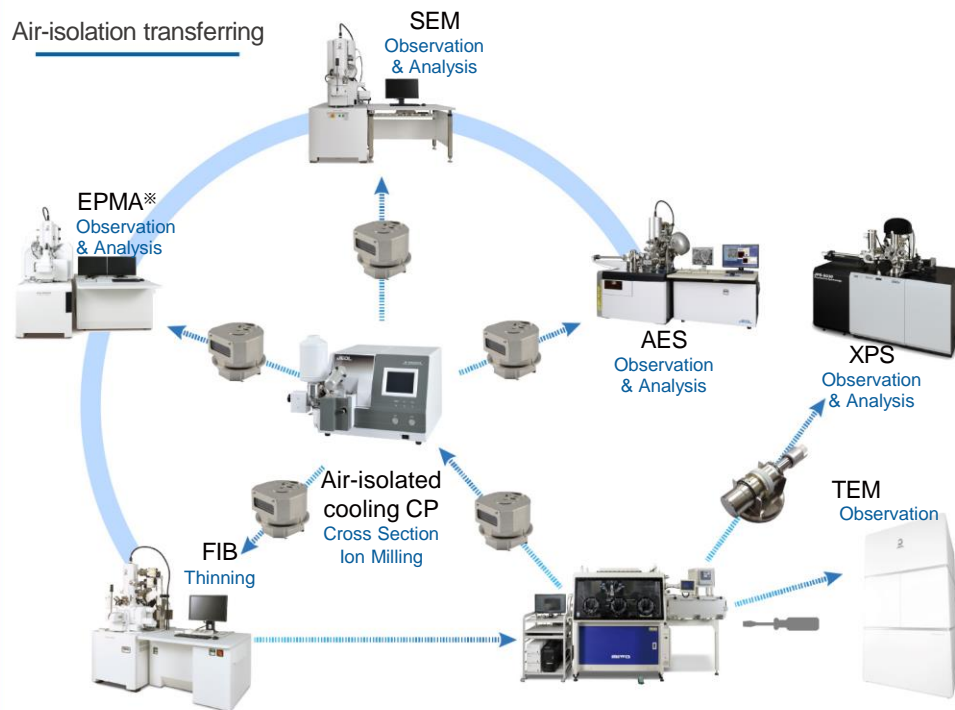


Progress in Analytical **YOKOGUSHI** Solutions for Next Generation Battery

- Strong inquiries and orders for R&D of next generation batteries.
- Increasing inquiries for particle analysis systems combining scanning electron microscopes (SEM) and energy dispersive X-ray spectrometers (EDS) for the manufacturing process control and inspection applications.

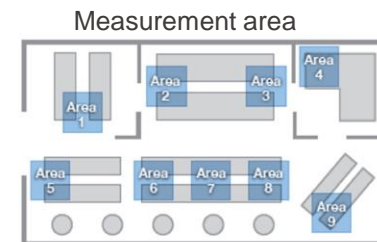
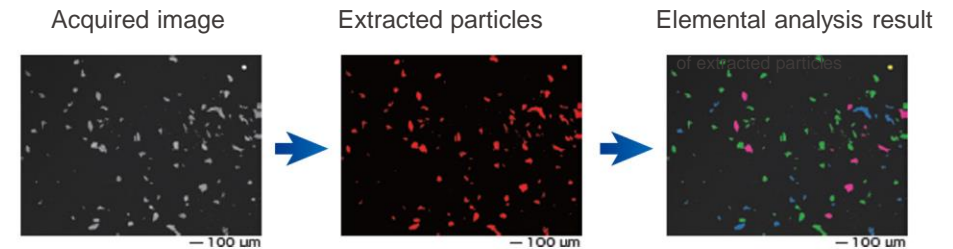
Next Generation Battery **YOKOGUSHI** Analytical Solutions

- Battery materials requires handling without air exposure to avoid alteration. Our sample preparation equipment and observation/analysis instruments provide Air-isolated transfer solutions.



Environment Inspection System for Automotive Battery Production Line

- LIBs for EV requires control of contaminants originating from the production environment, increasing the need for particle analysis systems combining scanning electron microscopes (SEM).



Example of calendar reflection

DATE	11/1	11/2	11/3	11/4	11/5	11/6	11/7	11/8	11/9	...
Area 1	388	452	346	398	654	686	330	284	152	
Area 2	103	122	118	154	328	292	210	162	115	
Area 3	111	114	131	111	282	227	187	118	125	
Area 4	137	125	185	128	134	143	180	127	103	
Area 5	109	130	112	72	142	137	97	124	107	
イベント										

Illig value ■ X ≥ 500 ■ 200 ≤ X < 500 ■ X < 200



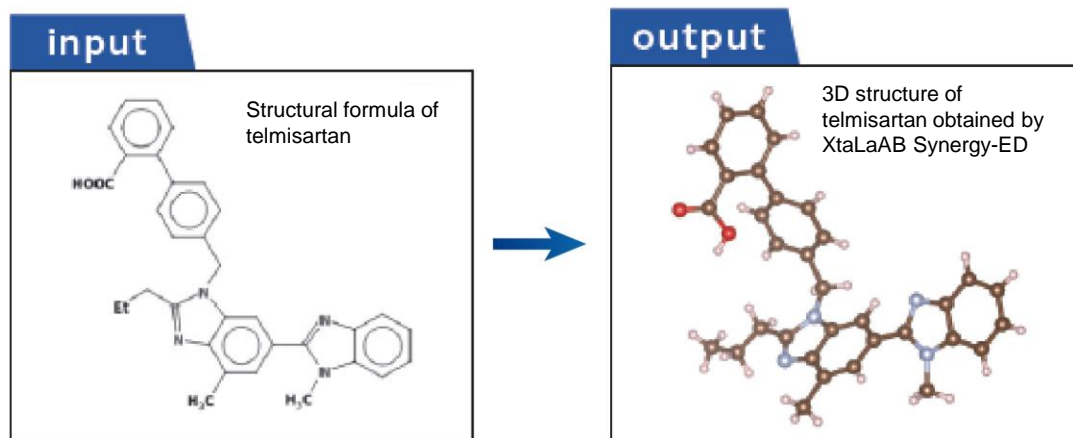
※EPMA: Electron Probe Micro Analyzer

Two XtaLAB Synergy-ED Electron Diffractometers supplied to UK's Leading Crystallography Facility

- The National Crystallography Service (NCS) is a world leading, unique facility in UK providing a service and researching in chemical crystallography.
- To provide more advanced solutions, the NCS newly established National Electron Diffraction Facility and 'XtaLAB Synergy-ED,' Electron Diffractometers were supplied to University of Southampton and University of Warwick.

Our analysis result using "XtaLAB Synergy-ED"

3D structure of telmisartan, a drug for hypertension (antihypertensive drug), was obtained. (The structure could be analyzed with crystals smaller than 1 μm , which is impossible with X-ray crystallography.)



Professor Simon Coles from University of Southampton (left) and Professor Richard Beanland from University of Warwick with a Rigaku XtaLAB Synergy-ED.

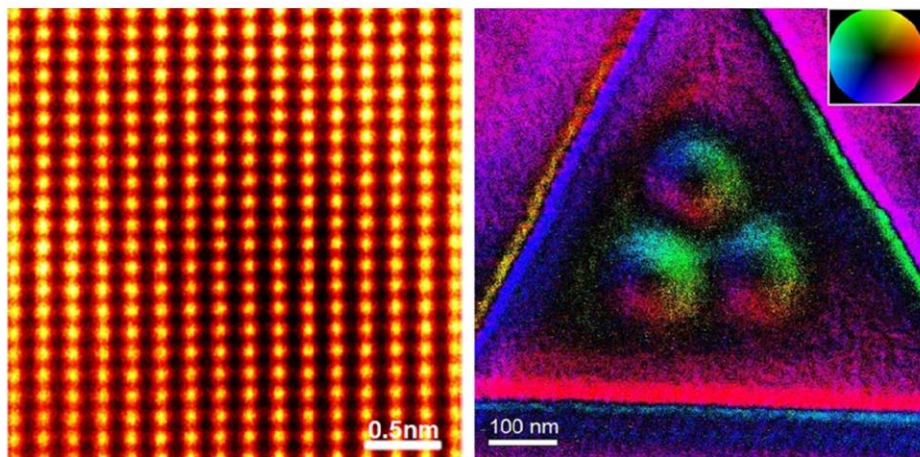
Photo from <https://www.southampton.ac.uk/news/2023/01/crystal-electron.page>

Japan Academy Prize For Electron Microscopy Goes To University Of Tokyo Professor Yuichi Ikuhara And Professor Naoya Shibata

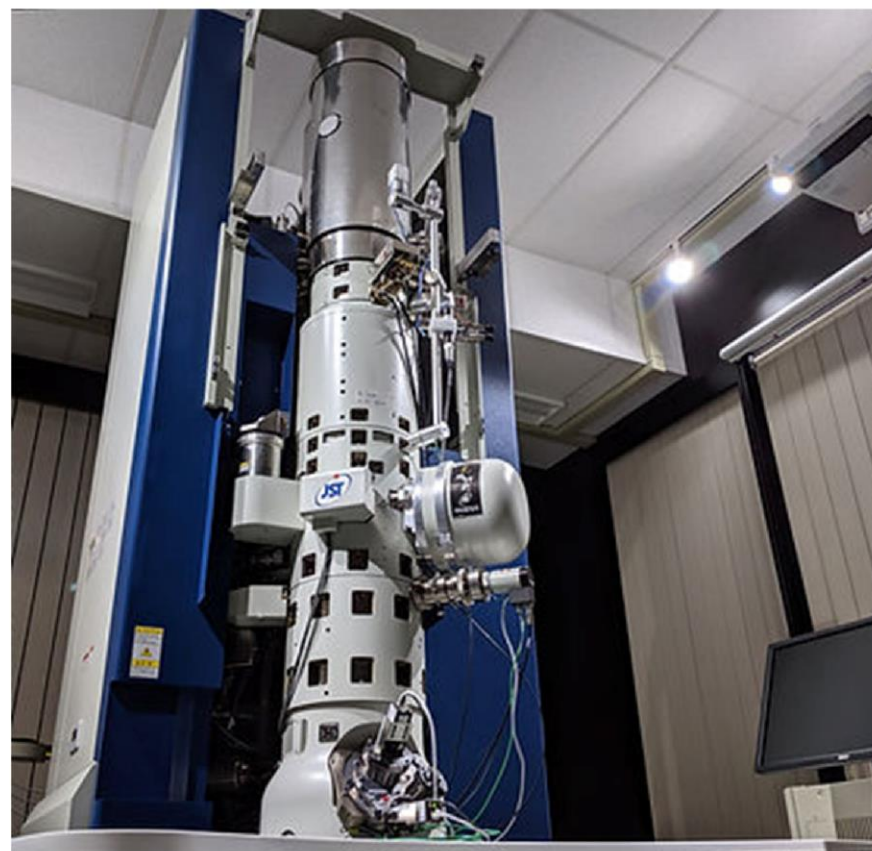
- JEOL congratulates Professor Yuichi Ikuhara (Institute of Engineering Innovation, School of Engineering, the University of Tokyo) and Professor Naoya Shibata (Director, Institute of Engineering Innovation, School of Engineering, the University of Tokyo), recently awarded the Japan Academy Prize for development of State-of-the-Art Electron Microscopy and their contribution to Nano Interface Technology (Joint Research). As corroborators with JEOL, their work in developing the Magnetic-field-free Atomic-Resolution STEM (MARS), Annular Bright Field (ABF), and Optimum Bright Field STEM detector (OBF) is invaluable. (March 14, 2023)

In 2019, University of Tokyo and JEOL successfully developed atomic-resolution magnetic-field free scanning transmission electron microscope (MARS)

We developed the world's first, new electron microscope enabling atomic resolution observation in a magnetic-free environment to apply to local electromagnetic field analysis of quantum materials, quantum devices, etc.



Atomic resolution image of Fe-Si steel and DPC image of magnetic skyrmion
(Courtesy of Professor N. Shibata, the University of Tokyo)

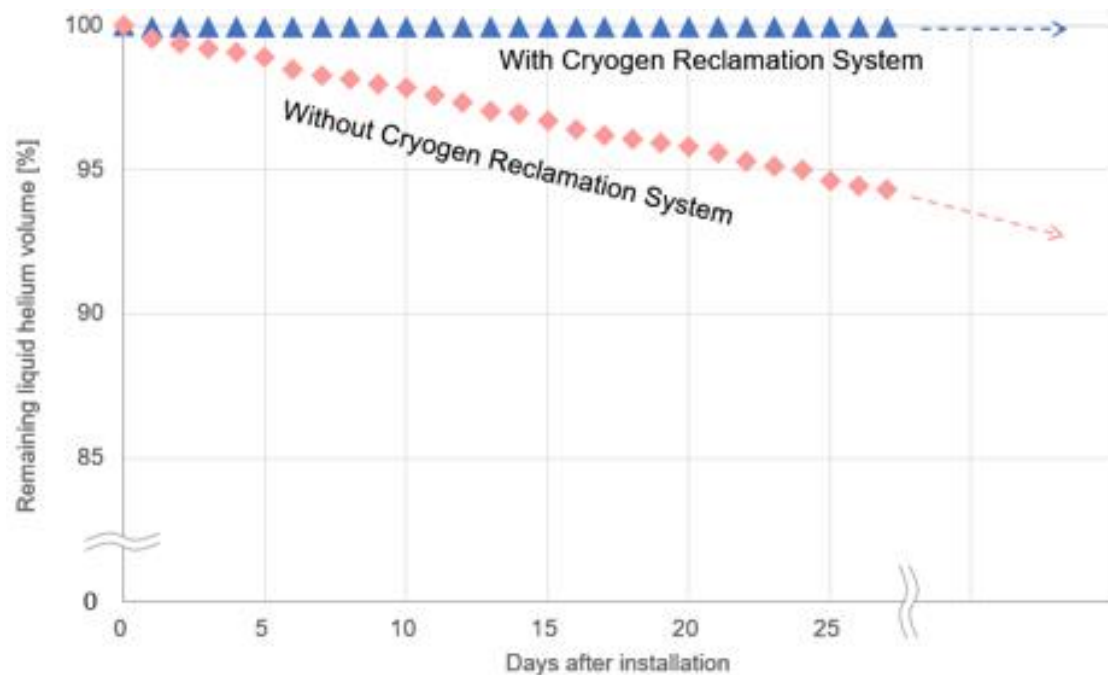


Strengthen NMR (Nuclear Magnetic Resonance Spectrometer) product competitiveness

▪ Substantially reduces the evaporation of liquid helium used in the superconducting magnet for NMR !

Cryogen Reclamation System product was jointly developed by JEOL Ltd. , a manufacturer of NMR instruments, Japan Superconductor Technology, Inc. (JASTEC) , a manufacturer of superconducting magnets, and Ulvac Cryogenics Inc. which has strengths in cryogenic technologies, by combining the cutting-edge technologies of each company.

It can substantially reduce evaporation of both liquid helium and liquid nitrogen that are inevitable as cryogen for the NMR instrument's superconducting magnet.



Comparison of the remaining liquid helium transitions
(An example when a JEOL magnet is used)

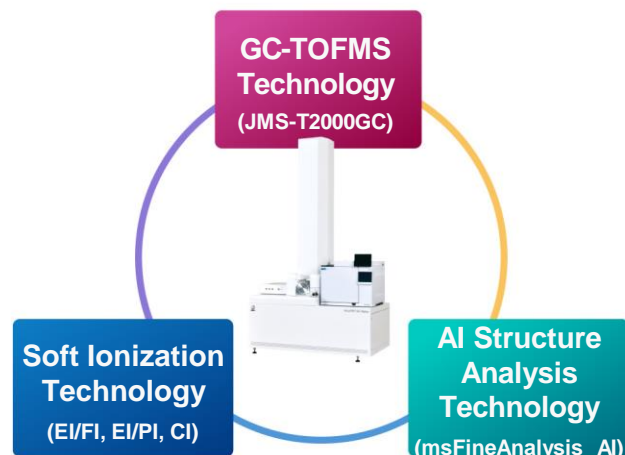


MS (Mass Spectrometer) : "msFineAnalysis AI" Unknown Compounds Structure Analysis Solution

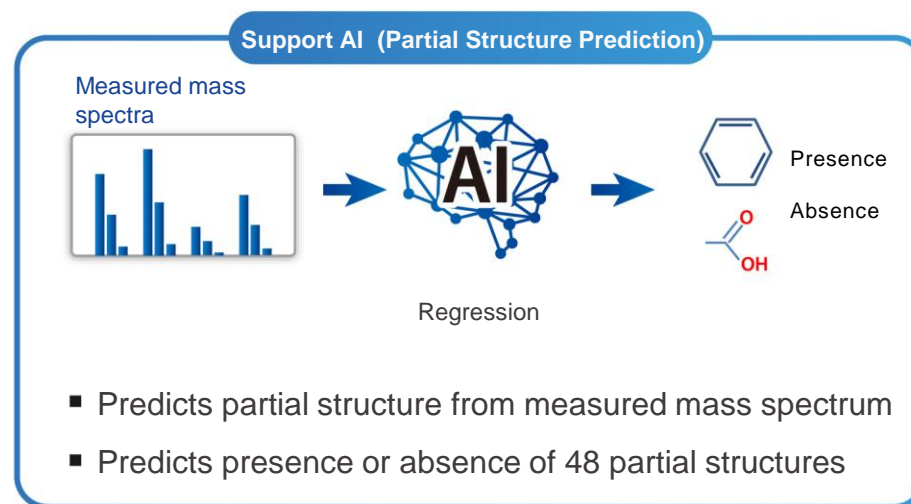
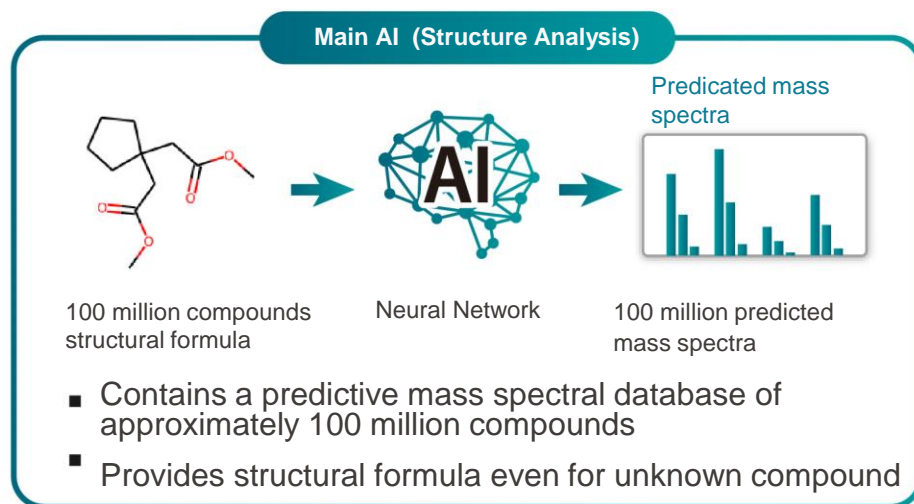
- Increasing inquiries for mass spectrometers (MS), due to "msFineAnalysis AI" that realizes qualitative analysis of unknown compounds

msFineAnalysis AI Solution

- Accurate mass analysis using GC-TOFMS= Composition prediction of observed ion
- Acquisition of molecular formula using soft ionization method
- Database of 100 million compounds using AI technology created



msFineAnalysis AI uses a complementary combination of deep learning and machine learning with different characteristics

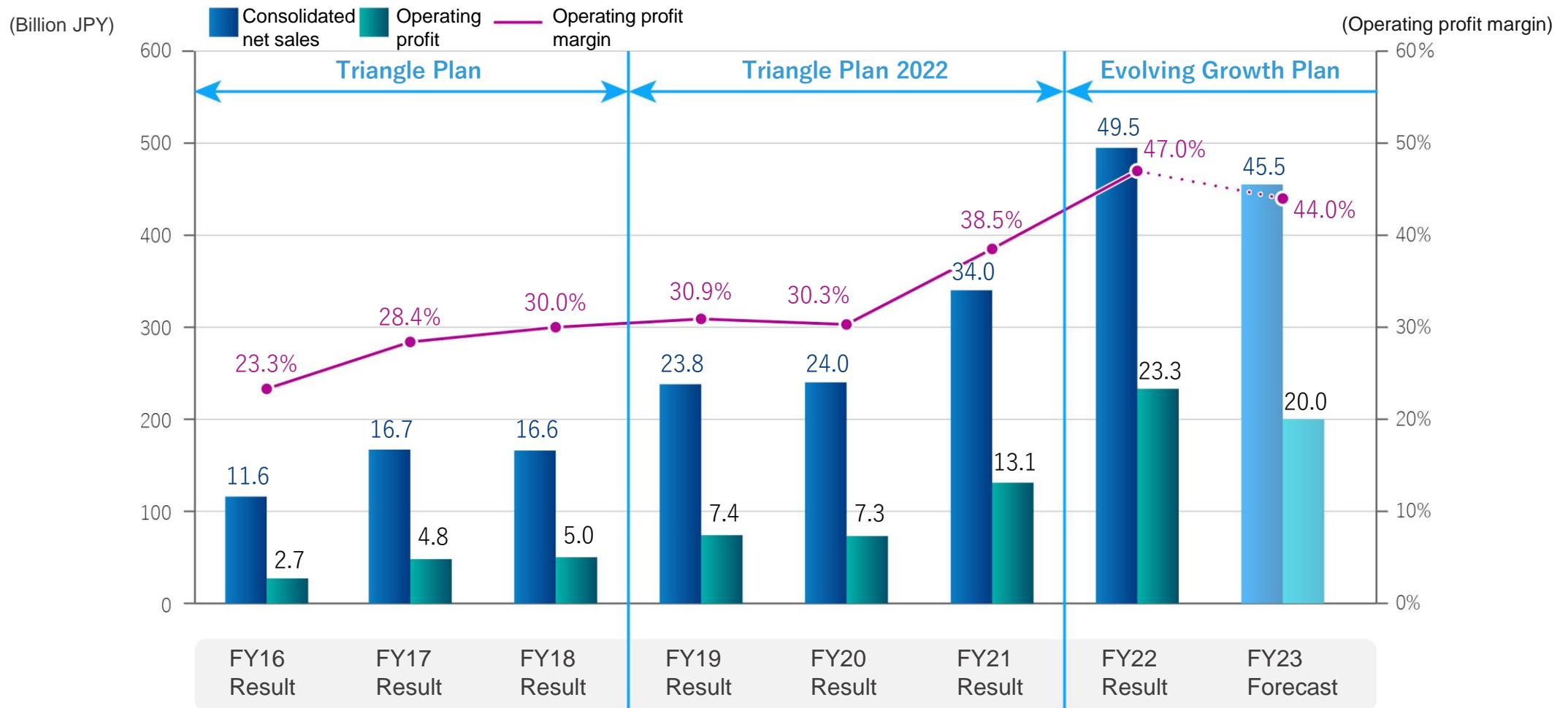


2. Performance of each business

2-2. Industrial equipment

Sales and OP transition in Industrial Equipment

Consolidated Net Sales/Operating Profit Transition



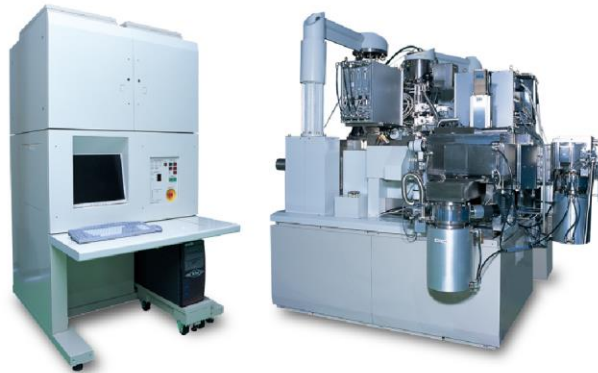
Exchange rate(1\$=Yen)

¥ 109 ¥ 111 ¥ 111 ¥ 109 ¥ 106 ¥ 113 ¥ 135 ¥ 130

Single beam mask lithography system and Spot Beam are strong

- Demand of single beam mask lithography system for legacy node are strong, especially in China, due to power semiconductor devices demand.
- Spot beam lithography system remains strong with increase of semiconductor R&D budget, in addition to brisk markets of semiconductor lasers and optical communication
- Enhancing overseas service structure (installation of clean rooms/training back-up equipment, etc.)

Single Beam Mask Lithography System



JBX-3050MV Electron Beam Lithography System
for 45nm to 32nm node mask/reticle production



JBX-3200MV Electron Beam Lithography System
for 28nm to 22/20nm node mask/reticle production

Spot Beam (Direct lithography system)



JBX-8100FS Series Electron Beam Lithography System



JBX-9500FS Electron Beam Lithography System

Next generation industrial electron beam metal 3D printer (AM machine)

- Orders received for "JAM-5200EBM Electron Beam Metal AM Machine" in Japan
- JEOL to install JAM-5200EBM at Cumberland Additive's Neighborhood 91 facility in Pittsburgh, USA. This collaboration brings JEOL new opportunities to demonstrate the unique abilities of the new EBM system in USA.
- A demo machine to be placed in Europe this FY
- Accelerating sales promotion in USA and Europe



Modeling Examples

Material : Ti64

Gear box



Material : Nickel-based superalloy

Impeller with shroud



Material : Pure copper

Heat sink



Material : Ti64

Acetabular cup

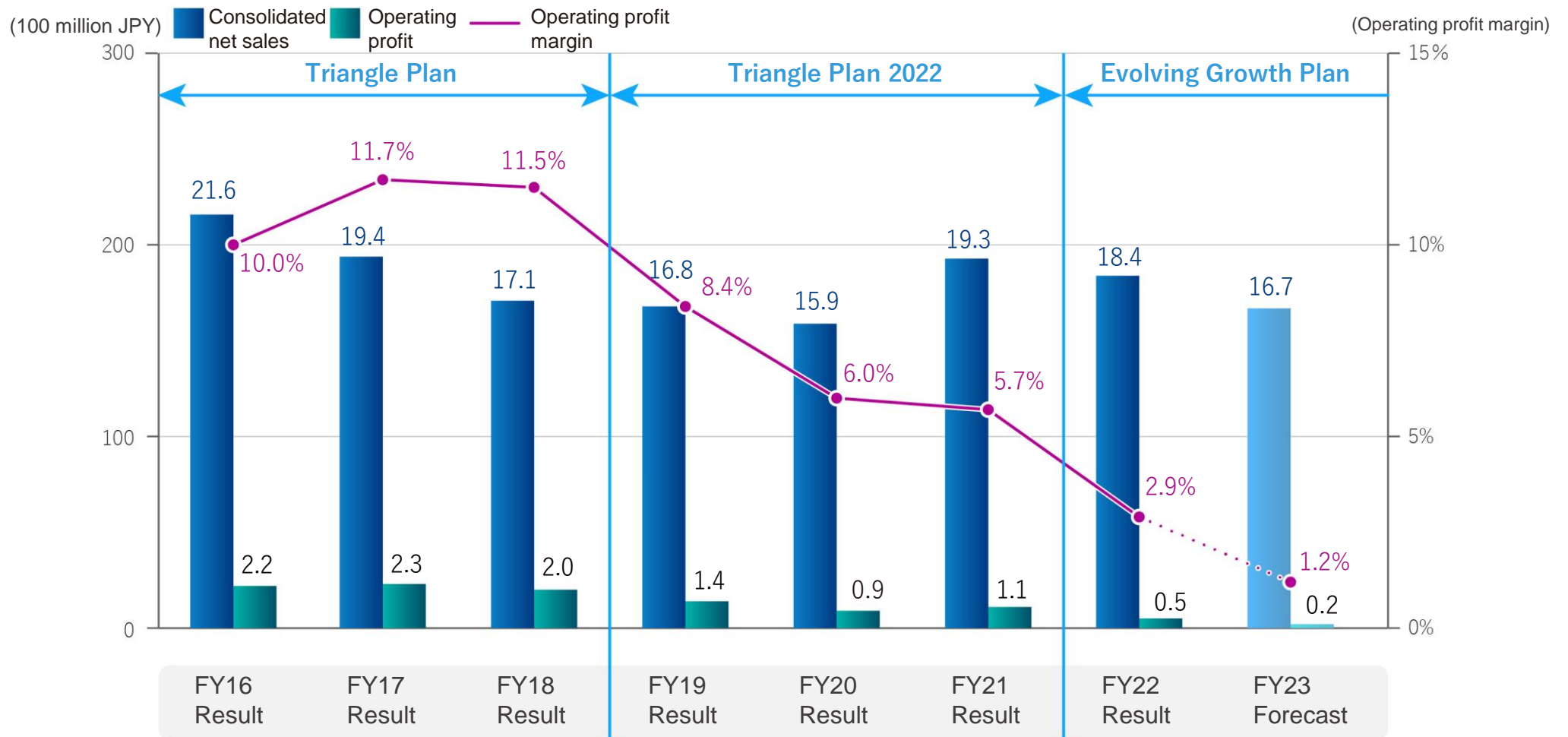


2. Performance of each business

2-3. Medical equipment

Sales and OP transition in Medical Equipment

Consolidated Net Sales/Operating Profit Transition



Exchange rate(1\$=Yen)

¥ 109 ¥ 111 ¥ 111 ¥ 109 ¥ 106 ¥ 113 ¥ 135 ¥ 130

Continued development of overseas markets and recovery of domestic demand

- Continue promoting to overseas markets, especially emerging countries
- Increasing inquiries especially from test centers in Japan



JCA-BM6010 G

Clinical Chemistry Analyzer
BioMajesty™



JCA-ZS050

Clinical Chemistry Analyzer
BioMajesty™ ZERO



JCA-BM8000 series (BioMajesty 8000 GX)

Clinical Chemistry Analyzer
BioMajesty™

Features of JEOL Equipment

Micro volume sample & reagent / High-throughput

3. Our initiatives to SDGs

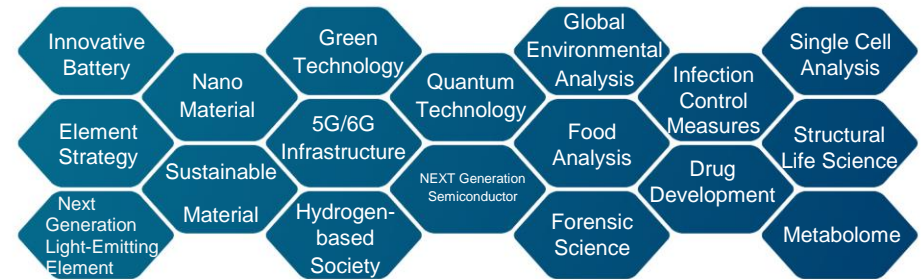


Our initiatives to SDGs

Our business growth is directly linked to SDG goals

In our management philosophy, there is an expression of “contributing to the progress in both science and human society”.

Even before the term SDGs was coined, we have been working on projects that lead to the sustainable development of society. For many years, we have been involved in university-industry collaborations and joint development around the world, contributing to the resolution of social issues and development. Through our "Evolving in the 70th year", we believe that the growth of our business will lead to the development of a sustainable society. We will also contribute to the long-term existence and development of our company and high evaluation as an investment target.



Materiality	Key Initiatives	Targeted SDGs
Provide products that contribute to people's health, safety, and security	<ul style="list-style-type: none"> Provide medical equipment indispensable for the diagnosis and prevention of illness Provide equipment with high sensitivity and accuracy that can analyze substances harmful to the human body Provide manufacturing equipment that contributes to the further development of sensing technology 	
Contribute to scientific progress and the sustainable development of society	<ul style="list-style-type: none"> Develop world-class scientific instruments supporting advancements in science Contribute to higher performance semiconductors supporting the communication infrastructure Create advanced technology by promoting partnerships 	
Contribute to the conservation and sustainability of the global environment	<ul style="list-style-type: none"> Provide measuring equipment indispensable for the R&D of green devices Manage chemicals throughout the supply chain by using green purchasing Develop equipment that reduces CO₂ emissions by conserving energy 	

Materiality	Key Initiatives	Targeted SDGs
Conduct distinctive activities that contribute to the community and society	<ul style="list-style-type: none"> Provide science education support (lessons) using electron microscopes at elementary and junior high schools Support academic promotions and the fostering of young researchers by donating to public interest incorporated foundations Promote open innovation in collaboration with domestic and overseas research institutes and universities 	
Contribute to the conservation and sustainability of the global environment	<ul style="list-style-type: none"> Streamline electricity use by introducing energy-saving equipment and other initiatives Reduce CO₂ emissions at business locations throughout the Group Thoroughly separate, reduce, and recycle waste Deploy the Don't Litter campaign, a cleanup drive for beautifying the surroundings 	
Develop human resources and respect human rights	<ul style="list-style-type: none"> Promote the creation of a workplace where females can more easily develop their careers Enhance systems to help bring balance to work and family in line with every person's stage in life Improve the awards program for employees making exceptional achievements 	

The Second Marie Skłodowska Curie Award

- JEOL co-sponsored the “Marie Skłodowska Curie Award” for young female researchers, who aspire to be active on the global stage, was established in 2021 by the Japan Science and Technology Agency (JST) and the Embassy of the Republic of Poland in Japan.

Award ceremony

May 16, 2023

Sponsored by

Japan Science and Technology Agency (JST)
Embassy of the Republic of Poland in Japan

Co-sponsored by

JEOL Ltd. (JEOL)
Polish Academy of Sciences

Supported by

Ministry of Education, Culture, Sports, Science and Technology
Polish Ministry of Education and Science



ポーランドが生んだ偉大な研究者
マリア・スクウォドフスカ=キュリーは
30代前半に行った研究の成果により
ノーベル物理学賞と化学賞を受賞しました。
彼女のように世界に羽ばたく
若手女性研究者たちを応援します。

募集期間 2022年9月30日(金)>2022年12月12日(月)
日本時間正午まで

応募条件

- 2023年4月1日時点で博士学位取得後5年程度までの女性研究者*、大学院生(博士後期課程)、これらに相当する方
- 日本国籍を有すること
- 科学技術に関連していれば研究分野は不同


* ライフイベント等による研究活動休止期間を勘案

 選考委員 岩崎 明子(委員長) エール大学 免疫学 特任教授 Stanley Professor of Immunobiology, Yale University iGEM-ピカール式医学研究所 正副所長	 岩尾 エマ はるか Google Cloud ディレクター/アドバイザー	 大原 博司 東京大学 カブシキ物産工学学術研究機構 機構長 カリフォルニア工科大学 フロッド・カブリ講義員 ワイルドキャット・バイオ先端物産工学研究所所長	 小谷 元子 東北大学 日本 医学長(研究科長) 理学研究科数専攻 教授
 塩谷 隆夫 東京大学 大学院工学系研究科長、教授 理化学研究所 先端研究員、チームリーダー	 沼田 圭司 京都大学 大学院工学研究科 教授 理化学研究所 先端研究員 研究センター・チームリーダー	 原田 尚美 東京大学 大学院工学研究科 国際・地域連携研究センター 教授	 日比谷 美子 理化学研究所 先端研究科 研究センター 研究員 東京大学 リサーチエグゼクティブ

表彰内容 最優秀賞 1名 / 副賞 100万円 + ポーランドの研究機関への渡航・滞在費 (2023年秋を想定) 奨励賞 2名 / 副賞 50万円

主催：国立研究開発法人科学技術振興機構(JST)、駐日ポーランド共和国大使館
協賛：日本電子株式会社(JEOL)、ポーランド科学アカデミー
後援：文部科学省、ポーランド教育科学省

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4. Summary





Becoming a top niche company supporting science and technology around the world

Company Philosophy

On the basis of "Creativity" and "Research and Development", JEOL positively challenges the world's highest technology, thus forever contributing to the progress in both Science and Human Society through its products.

Vision

"Evolving in the 70th Year"

Accelerate business expansion and achieve even higher profitability based on our unique technologies and human networks which have been developed since the company's founding.

Mid-Term Management Plan "Evolving Growth Plan"

We aim to improve customer satisfaction by enhancing our R&D, manufacturing, and service capabilities.

▶ YOKOGUSHI ◀

Promote Innovation by co-creation

Note on document handling

Information provided by this document and presented orally by our representative contains assumptions and beliefs based on data currently available.

Readers should be aware that actual results could differ materially from this outlook due to various known and unknown factors that impact our performance such as economic trends, upturn or downturn in the semiconductor industry, and changes in R&D spending.

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