

TOKYO KEIKI INC.

Securities code: 7721

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Financial Results Briefing for The Fiscal Year Ended March 31, 2023 (FY2022)

May 12, 2023

Forward-looking statements in this presentation are based on assumptions made by our management based on information available at the time of publication. Therefore, please be aware that there may be differences due to factors such as the business environment in the future.

Financial Results Summary

◆ Results for FY2022

- Sales increased and profits declined year on year.
- Profit attributable to owners of parent declined due to an extraordinary loss.
 - ✓ Hydraulics and Pneumatics Business recorded impairments. This will reduce the future cost burden, while advancing fundamental structural reforms to promote an early recovery in results.
- Sales of shares was recorded as extraordinary income for the purpose of a reduction in cross shareholdings to improve asset efficiency.
- The Company plans to maintain its initial forecast for annual dividends and pay an ordinary dividend of ¥30 per share.

◆ Progress of Medium-Term Business and PlanFY2023 Plan

- Sales and profits will grow by the increased order backlog, which is at the highest level in the past 10 years, and by strong demand for the defense business resulting from budgetary expansion in the national defense. Additionally, the Company will continuously taking steps to optimize sales prices.
- The initial plan for the third year of the medium-term business plan is expected to be missed. However, the Company will strengthen investment in human resources and R&D to realize Vision 2030.
- The Company plans to increase the ordinary dividend by ¥2.5 to ¥32.5 per share for FY2023.

◆ TOKYO KEIKI Vision 2030 Progress

- As the growth drivers, progress has been made in the Edge AI business, Hydrogen &Energy business, Aerospace business, and Railway business.

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- 1. Results for fiscal year ended Mar 2023 (FY2022)**
- 2. Progress of medium-term business plans,
And plans for the year ended Mar 31, 2024 (FY2023)**
- 3. Progress of TOKYO KEIKI Vision 2030**
- 4. Topics**

References

Business Trends

Our Business

Net Sales and P/L

- ◆ sales increased and profits decreased year on year.
- ◆ An extraordinary income of ¥662 million on the sale of cross shareholdings and an impairment loss of ¥1,115 million as an extraordinary losses were recorded. As a result, Profit attributable to owners of parent decreased.

(Million yen)	FY2021 Results	FY2022 Results	YoY change		Vs. Forecast announced on March 27, 2023		
			Amount	Rate	Forecast	Amount	Rate
Net sales	41,510	44,296	+2,786	+6.7%	44,000	+296	+0.7%
Operating profit	1,635	1,312	▲323	▲19.8%	940	+372	+39.6%
Ordinary profit	1,926	1,687	▲239	▲12.4%	1,330	+357	+26.8%
Extraordinary income	141	691	+549	—	—	—	—
Extraordinary losses	87	1,138	+1,050	—	—	—	—
Profit attributable to owners of parent	1,493	873	▲621	▲41.6%	580	+293	+50.5%

Operating profit margin	3.9%	3.0%
Exchange rate (vs. US\$)	¥112.40	¥135.49

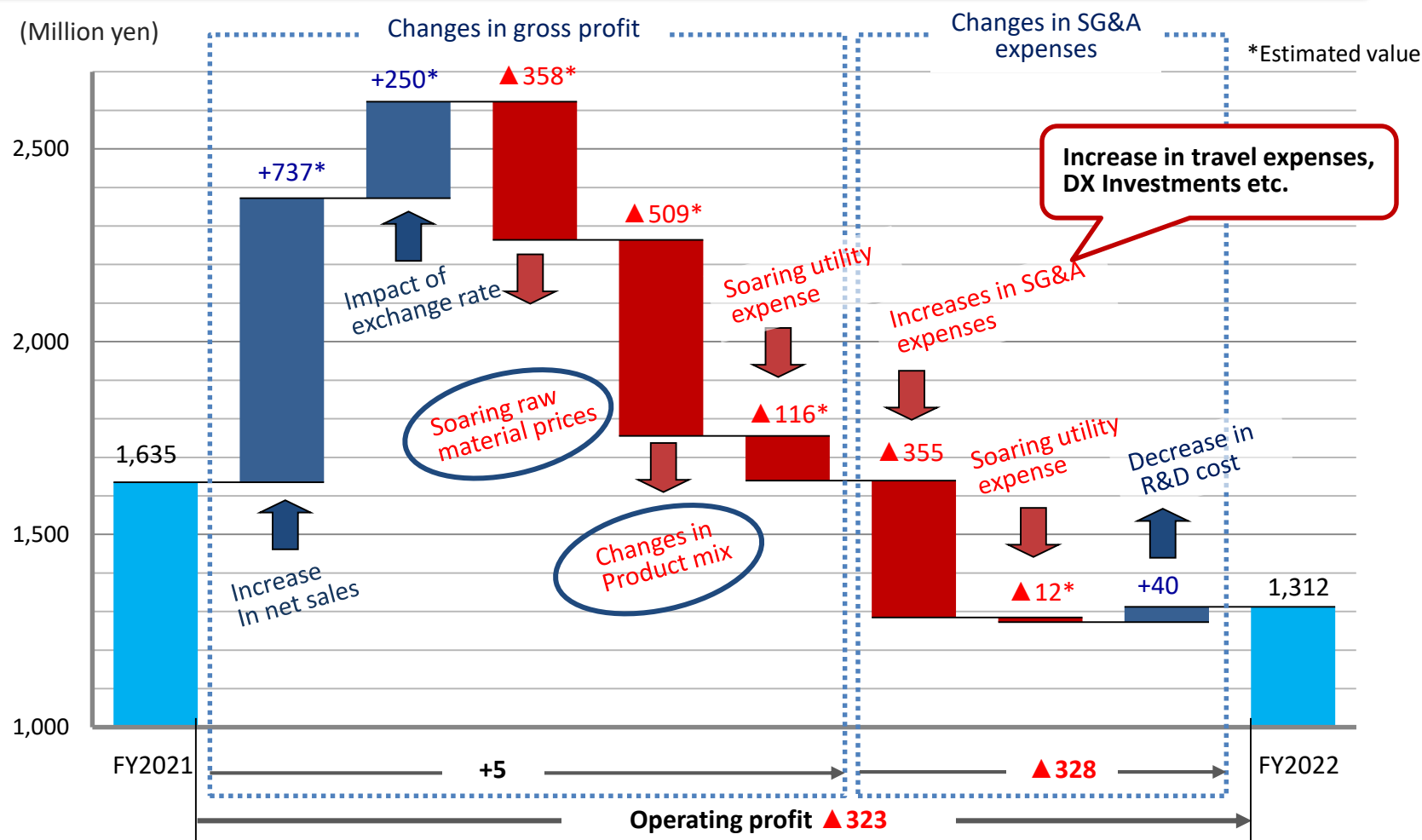
Trends in Key Indicators

- ◆ ROE declined from the previous fiscal year because of a decrease in operating profit and a decrease in profit attributable to owners of parent due to the recording of extraordinary losses.
- ◆ The equity ratio continues to maintain financial soundness.

	FY2018	FY2019	FY2020	FY2021	FY2022
ROE (%) (Return on equity)	6.8	4.9	3.1	4.6	2.7
ROA(%) (Return on asset)	4.6	3.6	2.7	3.5	3.0
Equity ratio (%)	49.8	53.5	58.7	58.7	58.1
EPS (yen) (Earnings per share)	117.2	86.8	57.7	91.1	53.2
BPS (yen) (Book-value per share)	1,764.2	1,782.4	1,919.2	2,005.0	2,005.9

Changes in Operating Profit (YoY)

- ◆ Operating profit declined due to a steep rise in raw material prices, a change in the product mix caused by higher sales of defense products with high cost ratios and a decline in sales of high value-added products, and a surge in utilities costs.



Net Sales and Operating Profit by Segment

- ◆ Marine Systems : Sales and profits increased due to strong demand in overseas markets and maintenance services, as well as the effect of the weak yen.
- ◆ Hydraulics and Pneumatics : Despite sluggish market conditions in overseas markets, the machine tool market was strong and the construction machinery market was firm. On the other hand, higher raw material prices and utility costs have not kept pace with securing profits by optimizing sales prices. As a result, sales increased and profits decreased.
- ◆ Fluid Measurement Equipment : Profits decreased due to a decline in sales of ultrasonic flowmeters due to a decline in projects for sewerage and agricultural water in the public sector.
- ◆ Defense & Communications Equipment : In the defense business, sales of radar warning receivers, etc., for fighter aircraft increased. On the other hand, the product mix changed in communication & control equipment business because of the carryover of high value-added products to the next fiscal year and beyond. As a result, sales increased and profits decreased.
- ◆ Others : In Railway Maintenance business, record-high sales and operating profit were achieved. Consequently, sales and profits increased in Other business as a whole.

	Net sales							Operating profit						
(Million yen)	FY2021 Results	FY2022 Results	YoY change		Vs. Forecast announced on March 27, 2023			FY2021 Results	FY2022 Results	YoY change		Vs. Forecast announced on March 27, 2023		
			Amount	Rate	Forecast	Change				Amount	Rate	Forecast	Change	
						Amount	Rate						Amount	Rate
Marine Systems	8,700	9,700	+1,000	+11.5%	9,700	0	0.0%	388	565	+177	+45.7%	520	+45	+8.7%
Hydraulics and Pneumatics	11,526	11,658	+132	+1.1%	11,600	+58	+0.5%	▲115	▲268	▲153	-	▲260	▲8	-
Fluid Measurement Equipment	4,432	4,452	+20	+0.4%	4,400	+52	+1.9%	915	527	▲388	▲42.4%	530	▲3	▲0.6%
Defense & Communications Equipment	13,884	14,765	+881	+6.3%	14,600	+165	+1.1%	312	▲94	▲406	-	▲230	+136	-
Others	2,966	3,718	+752	+25.3%	3,700	+18	+0.5%	250	675	+425	+170.3%	500	+175	+35.0%
Total	41,510	44,296	+2,786	+6.7%	44,000	+296	+0.7%	1,635	1,312	▲323	▲19.8%	940	+372	+39.6%

*Segment sales and operating profit are before adjustments.

Status of Orders Received and Order Backlog

- ◆ Both orders received and order backlog increased in all businesses, except for Hydraulics and Pneumatics Business orders. This is the highest level in the past 10 years and will contribute to the increase in sales from the next fiscal year onwards.
- Marine Systems : Both orders received and order backlog increased thanks to strong overseas demand for new vessels.
 - Hydraulics and Pneumatics : Orders decreased owing to sluggish demand in overseas markets.
 - Fluid Measurement Equipment : Orders received and order backlog both increased by steady growth in public-sector projects.
 - Defense & Communications Equipment : Both orders received and order backlog increased significantly due to the acquisition of a large-scale project in the defense business. This order backlog is expected to be sold in the 3 years through FY2025.
 - Others : Both orders received and order backlog increased because of new projects in Railway Maintenance business.

Millions of yen	Amount of orders Received For FY2022				Amount of order backlog at the end of FY2022			
	FY2020	FY2021	Amount of Change	Rate of Change	FY2020	FY2021	Amount of Change	Rate of Change
Marine Systems	9,772	10,516	+745	+7.6%	3,348	4,164	+816	+24.4%
Hydraulics and Pneumatics	12,126	11,836	▲290	▲2.4%	3,260	3,439	+179	+5.5%
Fluid Measurement Equipment	4,571	4,892	+321	+7.0%	1,153	1,593	+440	+38.2%
Defense & Communications Equipment	15,088	20,259	+5,172	+34.3%	16,775	22,269	+5,495	+32.8%
Others	3,520	3,771	+251	+7.1%	1,467	1,550	+82	+5.6%
Total	45,077	51,279	+6,202	+13.8%	26,003	33,016	+7,012	+27.0%

Balance Sheet

- ◆ Current assets increased. The main reason was an increase in inventories due to the early securing of parts and materials and the accumulation of inventories in line with an increase in orders.
- ◆ Non-current assets decreased. This was mainly due to a significant decline in tangible assets resulting from the impairment of business assets in Hydraulics and Pneumatics Business, and a decline in investment securities by the partial sale of cross shareholdings.

(Assets)

(Liabilities and Net Assets)

(Million yen)	As of March 31,2022	As of March 31, 2023	Amount of change	(Million yen)	As of Mach 31,2022	As of March 31, 2023	Amount of change
Current assets	43,102	44,814	+1,713	Current liabilities	19,031	21,385	+2,354
Cash and deposits	12,244	8,710	▲3,534	Notes and accounts payable	6,565	6,824	+259
Notes and accounts receivable	11,976	13,783	+1,807	Short-term loans payable	8,102	9,951	+1,848
Electronically recorded monetary claims	3,353	3,598	+245	Provision for bonuses	1,159	1,145	▲15
Inventories	14,979	18,153	+3,175	Non-current liabilities	3,640	1,787	▲1,853
Accounts receivable	245	269	+24	Long-term loans payable	2,136	-	▲2,136
Other	307	302	▲5	Total liabilities	22,671	23,172	+502
Non-current assets	12,916	11,809	▲1,107	Shareholders' equity	30,708	31,104	+396
Tangible assets	6,617	5,458	▲1,159	Retained earnings	24,152	24,532	+380
Intangible assets	94	137	+43	Accumulated other comprehensive income	2,180	1,822	▲358
Investment securities	3,956	3,440	▲516	Total net assets	33,348	33,451	+104
Total assets	56,018	56,624	+605	Total liabilities and Net assets	56,018	56,624	+605

Cash Flows

- ◆ Operating cash flow decreased due to an increase in inventories and an increase in notes and accounts receivable.
- ◆ Cash flows from investment activities increased mainly due to the sale of cross stockholdings.

(Million yen)	FY2018	FY2019	FY2020	FY2021	FY2022
Operating CF	1,638	2,915	7,068	2,256	△2,829
Investment CF	△1,135	△1,139	△928	△572	4
FCF	503	1,776	6,140	1,684	△2,824
Financial CF	△920	△3,456	△2,247	△1,120	△780
Cash and cash equivalents at end of period	9,397	7,709	11,588	12,208	8,671

Depreciation	1,338	1,230	1,128	1,073	1,035
Inventories	16,990	15,001	12,673	14,979	18,153

Profit returns to shareholders

[Dividend Policy]

Our basic policy is to implement optimal shareholder returns measures that take into account an optimal capital structure, while giving top priority to growth-oriented investments, with a view to balancing these investments with our financial base, in order to increase corporate value by realizing TOKYO KEIKI Vision 2030. In accordance with this stance, we will strive for stable and continuous shareholder returns with regard to dividends for each fiscal year, taking into account our past dividend performance.

[Commemorative dividend]

For FY2022, we deliver an ordinary dividend of ¥30 per share. With regard to dividends for FY2023, we plan to increase the ordinary dividend per share by ¥2.5 to ¥32.5, with the aim of maintaining stable and continuous dividends, taking into account our business performance and past dividend results.

[Shareholder benefits program (TOKYO KEIKI Premium Benefits Club)]

The terms of the point acquisition system in the shareholder benefit program will be changed from the points based on **the end of March 2024**.

*For more information, please refer to our website or the "Notice of Changes to the Terms and Conditions of Shareholder Benefits Program (TOKYO KEIKI Premium Benefits Club)" which was announced on November 28, 2022. (Japanese only)

Dividend for the last five years and forecast for FY2022

	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023 (Forecast)
Annual dividend per share (yen)	25.00	25.00	25.00	Common, 25.00 +Commemorative 5.00	30.00	32.50
Payout ratio (consolidated) (%)	21.3	28.8	43.4	32.9	56.4	44.1%
Total return ratio (consolidated) (%)	25.6	34.7	43.4	33.0	56.5	—

Status of recent acquisition of treasury shares

	May 2014	May 2015	Nov 2015	Nov 2017	Feb 2019	Nov 2019
Total number of reacquired shares (yen) *	310,000	300,000	335,000	58,000	76,800	84,700
Acquisition cost (million yen)	84	84	84	85	85	85

*From Nov 2017 onward, the numbers of shares are those after consolidation of shares.
(The numbers before consolidation shares are 1/5 of the stated numbers.)

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Business Trends

Our Business

Net Sales and Profit/Loss Forecast for FY2022

◆ Year on year change:

- A high level of order backlog leads to sales increase. In addition, we plan to increase sales and profits by grasping demand in each market, including increased demand in the defense business thanks to an expansion in defense budgets, and by continuing to optimize sales prices.
- Ordinary profit is expected to decline due to a decrease in dividend income owing to the sale of cross shareholdings in FY2022.

◆ Comparison with medium-term business plan:

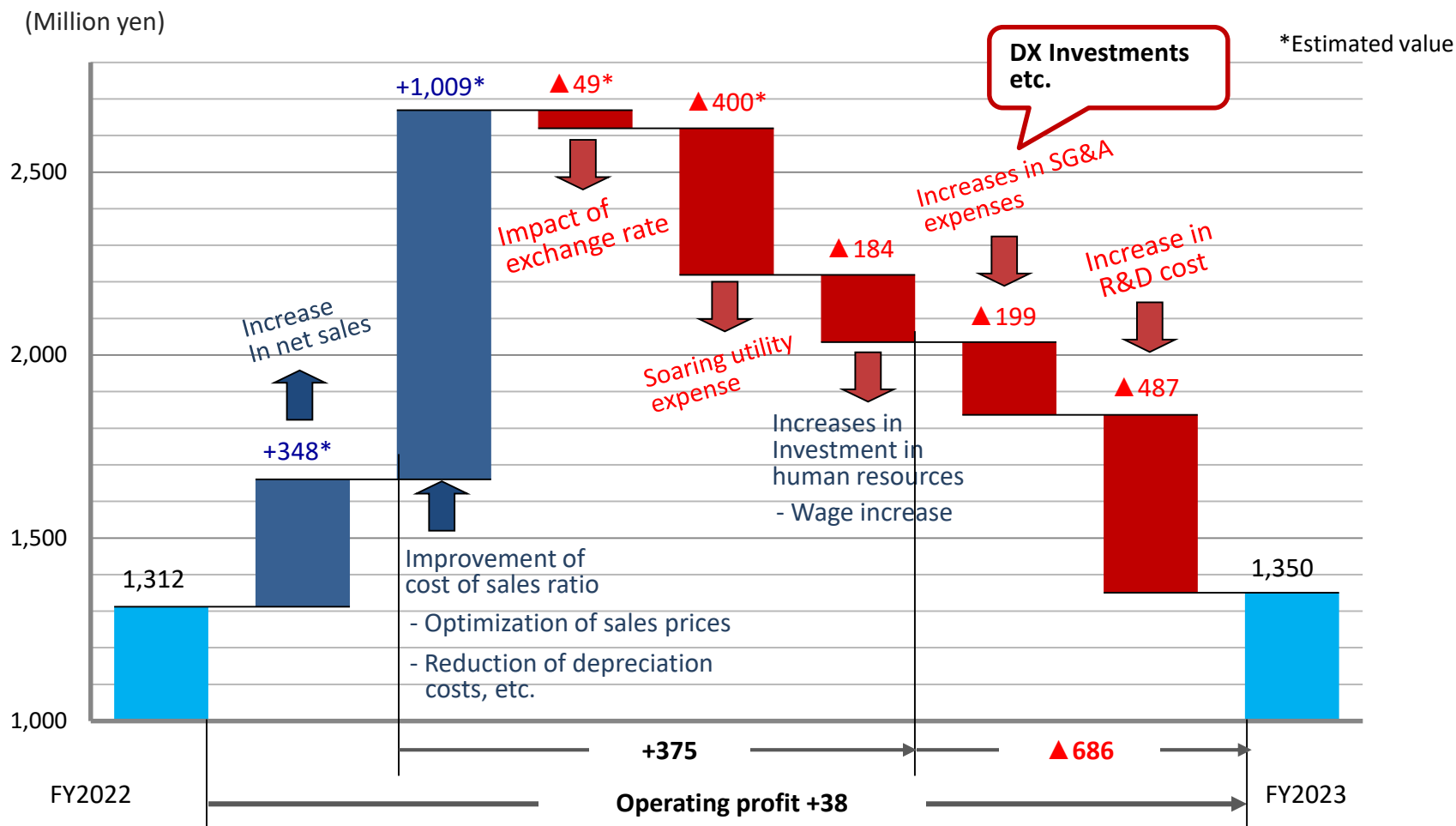
- Due to a carryover of development projects in the defense business, sales and profits do not reach the medium-term business plan targets. However, we aim to minimize the difference between the plan and the result by introducing new products and strengthening existing businesses.

(Million yen)	FY2021	FY2022	FY2023			
			Forecast	YoY change	Medium-Term Business Plan Targets*	
				Amount (rate)	Plan	Amount (rate)
Net sales	41,510	44,296	45,700	+1,404 (+3.2%)	49,400	▲3,700 (▲7.5%)
Operating profit	1,635	1,312	1,350	+38 (+2.9%)	3,500	▲2,150 (▲61.4%)
Ordinary profit	1,926	1,687	1,550	▲137 (▲8.1%)	3,550	▲2,000 (▲56.3%)
Profit attributable to owners of parent	1,493	873	1,210	+337 (+38.7%)	2,580	▲1,370 (▲53.1%)

*Announced on June 10, 2021. 13

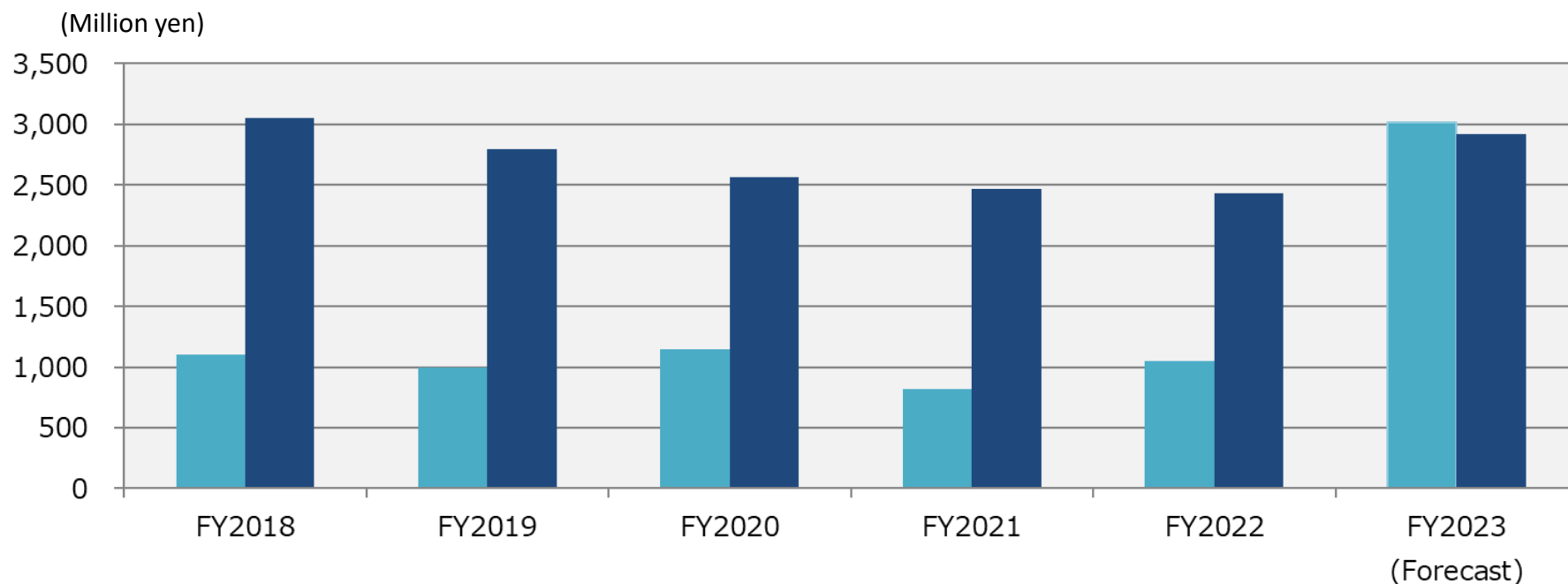
Changes in Operating Profit (YoY)

- ◆ Operating profit is expected to increase slightly due to an improvement in the cost of sales ratio, despite an increase in expenses stemming from investments in R&D and human resources, as well as higher utilities costs.



Growth-oriented (Capital Investment, R&D)

- ◆ In FY2023, we plan a significant increase in capital investment compared to the previous fiscal year for the sake of development projects in the defense business, the completion of the space building (formerly named the satellite assembly building) for the space business in the communication & control equipment business, and investment in company-wide system upgrades.



(Million yen)	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023 (Forecast)
Capital investment	1,102	993	1,145	815	1,049	3,017
R&D	3,052	2,796	2,562	2,469	2,429	2,916

Medium-Term Business Plan: Progress by Segment

- ◆ Net sales are expected to increase in all segments except Other business.
- ◆ Marine Systems Business is expected to decline temporarily due to growth-oriented investments.
- ◆ Hydraulics and Pneumatics Business is expected to become profitable because of optimizing sales prices and improving productivity by rebuilding its manufacturing structure.
- ◆ In Defense & Communications Equipment Business, sales and profits are expected to increase thanks to strong demand resulting from budgetary expansion in national defense. In addition, the projects carried over from the previous fiscal year will contribute to increase sales in the communication & control equipment business.

	Net sales						Operating profit					
Unit : (Million yen)	FY2021	FY2022	FY2023				FY2021	FY2022	FY2023			
			Forecast	YoY change	Medium-Term Business Plan Targets*				Forecast	YoY change	Medium-Term business Plan Targets*	
				Amount (rate)	Plan	Amount (rate)				Amount (rate)	Plan	Amount (rate)
Marine Systems	8,700	9,700	9,700	0 (0%)	9,700	0 (0%)	388	565	140	▲425 (▲75.2%)	510	▲370 (▲72.5%)
Hydraulics and Pneumatics	11,526	11,658	12,200	+542 (+4.6%)	12,800	▲600 (▲4.7%)	▲115	▲268	260	+528 (-)	740	▲480 (▲64.9%)
Fluid Measurement Equipment	4,432	4,452	4,500	+48 (+1.1%)	4,700	▲200 (▲4.3%)	915	527	550	+23 (+4.4%)	490	+60 (+12.2%)
Defense & Communications Equipment	13,884	14,765	15,800	+1,035 (+7.0%)	18,500	▲2,700 (▲14.6%)	312	▲94	200	+294 (-)	1,230	▲1,030 (▲83.7%)
Others	2,966	3,718	3,500	▲218 (▲5.9%)	4,000	▲500 (▲12.5%)	250	675	300	▲375 (▲55.6%)	690	▲390 (▲56.5%)
Total	41,510	44,296	45,700	+1,404 (+3.2%)	49,400	▲3,700 (▲7.5%)	1,635	1,312	1,350	+38 (+2.9%)	3,500	▲2,150 (▲61.4%)

*Announced on June 10, 2021.

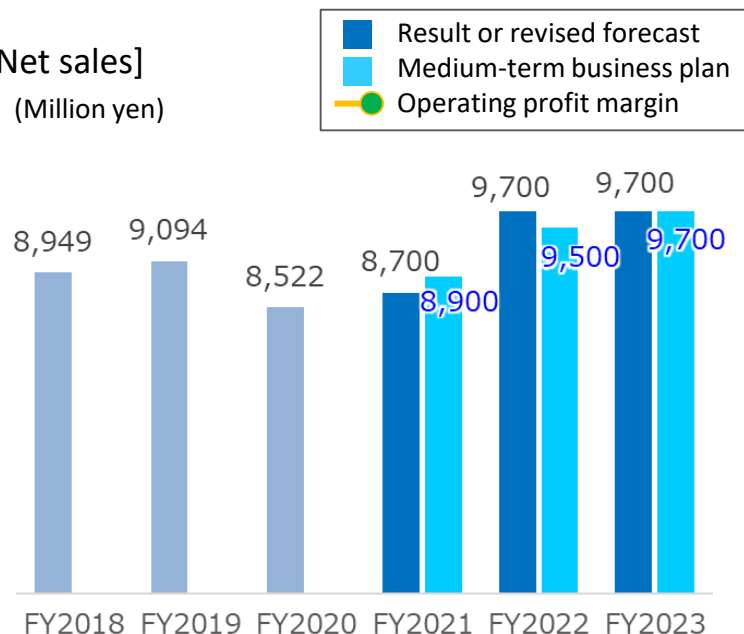
(Segment sales and operating profit are before adjustments.)

Status of External Environmental Risks

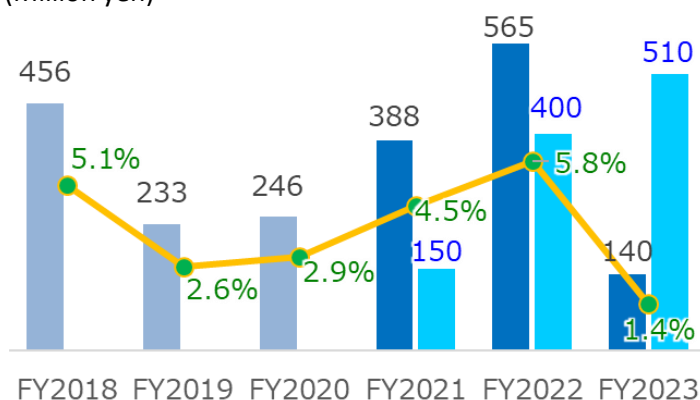
	Occurrences	Target Business	Response	Degree of impact
Difficulty of obtaining materials and rises in raw material prices	<ul style="list-style-type: none"> • The difficulty of obtaining electronic components, mainly semiconductors, continues. • Material costs such as metalworking products, semiconductors, resin-based components remains high. • Utility costs continue to rise. 	✓ All businesses	<ul style="list-style-type: none"> • Continue negotiations with customers to raise selling prices. • Secure parts by advance arrangements and maintenance of market inventory. • Adjust the delivery timing as necessary. • Ensure thorough power saving. 	High
	<ul style="list-style-type: none"> • Postponement and cancellation of contracts due to tightening of customers' budgets caused by high costs. 	<ul style="list-style-type: none"> ✓ Fluid Measurement Equipment ✓ Defense & Communications Equipment 	<ul style="list-style-type: none"> • Strengthen the monitoring of contracts in order not to lose orders. 	High
Exchange rate	<ul style="list-style-type: none"> • Rising yen 	✓ Marine Systems	<ul style="list-style-type: none"> • Planned at ¥130/\$ • Effectively utilize foreign currency deposits by strengthening the monitoring of exchange rate fluctuations. 	Medium
Market conditions in China	<ul style="list-style-type: none"> • Postponement of orders owing to deterioration in market conditions • Deterioration in cost of sales ratio due to low sales prices. 	✓ Hydraulics and Pneumatics	<ul style="list-style-type: none"> • Strengthen confirmation of customers' operating forecasts so as to optimize inventories. • Improve profitability through cost reductions, and reduce sales of unprofitable products. 	Medium

Marine Systems Business

[Net sales]
(Million yen)



[Operating profit]
(Million yen)



Medium-Term Business Plan

- New shipbuilding market: Secure profits by increasing further market share and reducing costs for mainstay products such as autopilots and marine gyrocompasses.
- Existing vessel market: Focus on expanding sales of new electronic chart display (ECDIS), equipment replacement, and maintenance services.
- Overseas market (China): Expand sales of compact marine gyrocompasses and medium-sized autopilot for inland shipping and fishing vessels in China.

Progress

- In FY2023, while the demand for new vessels in East Asia subsided, net sales are expected to be similar to FY2022 thanks to the robust growth of the domestic coastal vessel market and maintenance services.
- Operating profit is expected to decline significantly. This is mainly because of increases in depreciation and R&D expenses associated with growth investments.

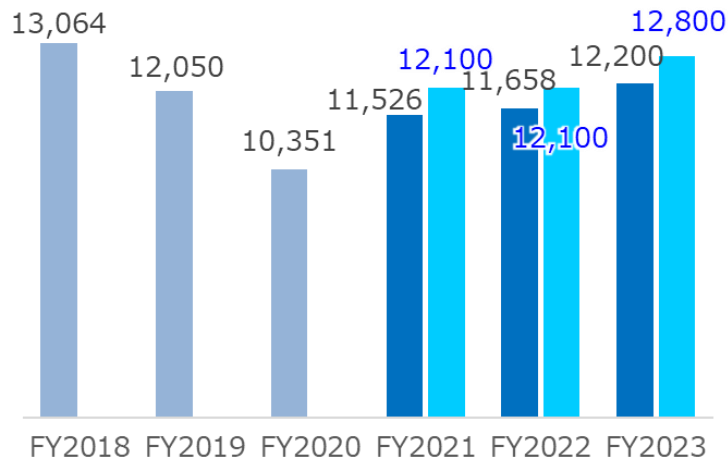
Future Measures

- Strengthen sales of new ECDIS to in-service vessels.
- Continue capital investment to increase marine gyrocompasses production.
- Promote research and development related to unmanned vessels.

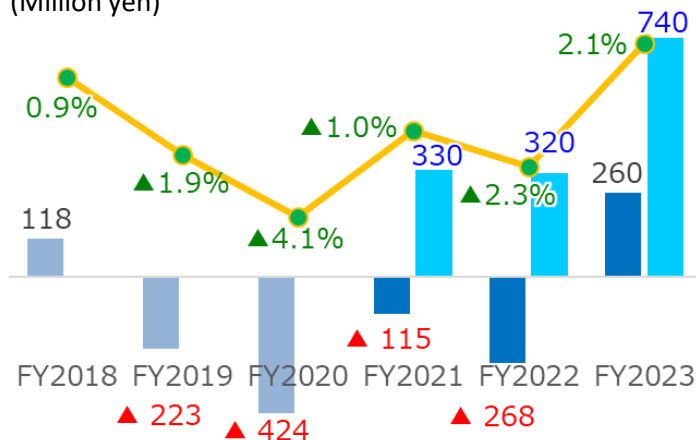
Hydraulics and Pneumatics Business

[Net sales]
(Million yen)

■ Result or revised forecast
■ Medium-term business plan
● Operating profit margin



[Operating profit]
(Million yen)



Medium-Term Business Plan

- Expand sales of high-value-added products and launch high-pressure, large-capacity products in the market.
- Expand business domains in hydrogen-related businesses as a business that contributes to the realization of a decarbonized society.
- Enter the steel and chemical plant markets for existing hydraulic products.
- Develop high-value-added hydraulic units in response to the shift to IoT.
- Develop electronic devices for next-generation construction machinery.

Progress

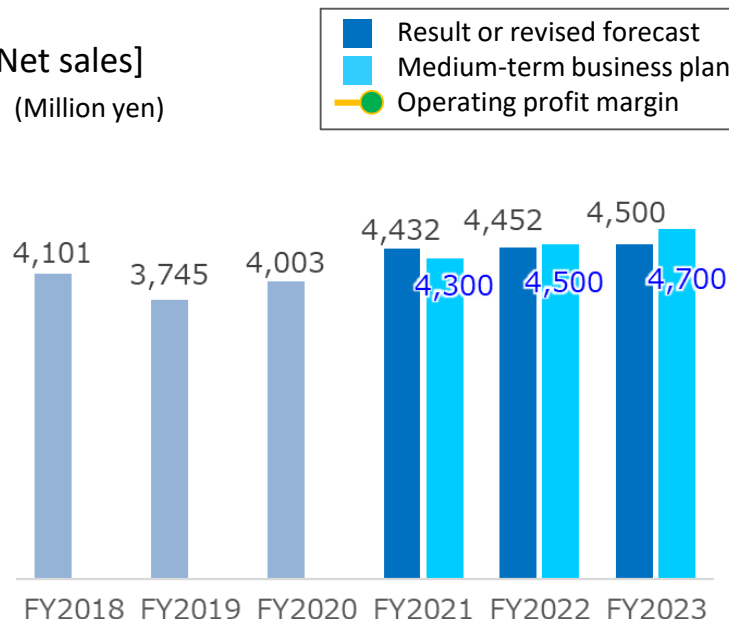
- In FY2023, net sales are expected to increase as demand remains high in the construction machinery market and the plastic processing machinery market.
- The effects of ongoing efforts to optimize sales prices are going to appear.
- Operating profits will go into the black by optimizing sales prices, strengthening sales of high-value-added products, and improving productivity through rebuilding the production system.

Future Measures

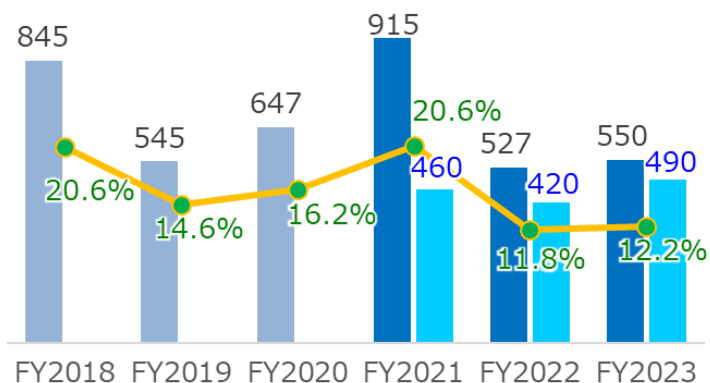
- Review sales of unprofitable products for overseas markets.
- Further improve productivity by automating production processes and saving labor.
- Utilize the Vietnamese subsidiary more efficiently.
- Strengthen supply chains in Southeast Asia.
- Strengthen development of hydrogen compressors to expand these variations.
- Over the medium to long term, in this business we will reform the business structure by restructuring its production system, thoroughly reducing costs, and introducing new products.

Fluid Measurement Equipment Business

[Net sales]
(Million yen)



[Operating profit]
(Million yen)



Medium-Term Business Plan

- Domestic public-sector market
 - Expand sales of water level measuring systems for disaster prevention markets.
 - Expand sales of high-precision ultrasonic flowmeters in the water and sewerage markets.
- Private market
 - Increase shares of microwave level gauges for plants.
 - Introduce and expand sales of new docking support systems.
- Fire extinguishing systems market
 - Promote gas cylinder valve inspections and repairs to strengthen accident-prevention measures

Progress

- In FY2023, net sales of measuring instruments are expected to increase slightly by expanding sales of new products previously introduced in both the public and private markets, and by introducing newly developed microwave level gauges.
- Operating profit is expected to increase slightly YoY and compared to the medium-term plan owing to higher sales and improved productivity.

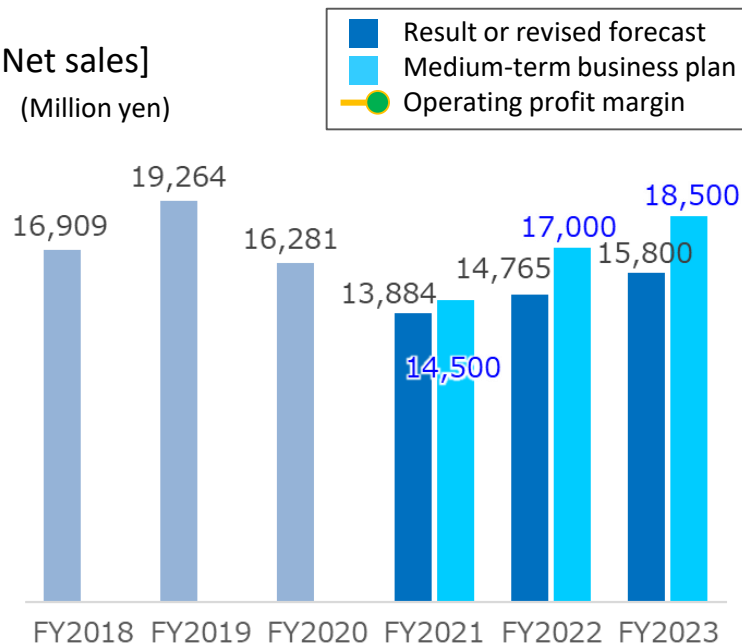
Future Measures

- Measuring instruments:
 - Expand sales of high-precision ultrasonic flowmeter series to the public sector market, and microwave level gauges to food plants in the private sector market.
 - Develop and market new products, such as flow direction meters and simple installation type flowmeters.
- Fire extinguishing systems:
 - Expand sales in new markets by expanding customers, target facilities, product groups, etc.
 - Handle maintenance businesses other than our delivery projects.

Defense & Communications Equipment Business

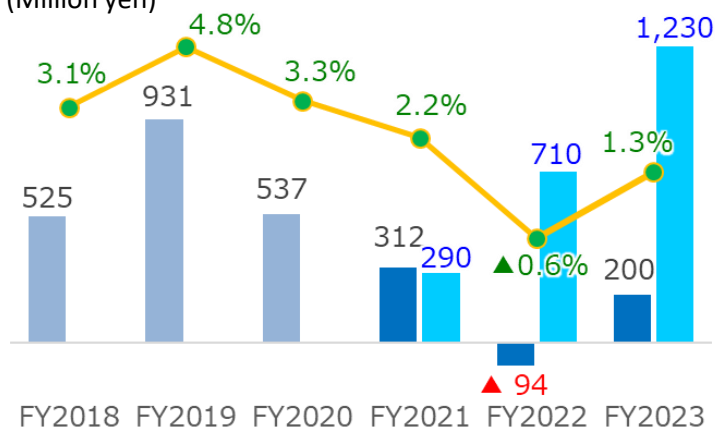
[Net sales]

(Million yen)



[Operating profit]

(Million yen)



Medium-Term Business Plan

- Defense business
 - Defense equipment: Expand applications through microwave-related R&D.
 - Marine Traffic Equipment: Promote sales expansion in foreign markets of new models of solid-state radars for coastal monitoring, which contributes to safe marine traffic.
- Communication & Control Equipment business
 - Inertial sensor and applied equipment: Continue to develop and expand sales of equipment related to automation for agricultural machinery that contributes to efficiency in agriculture.
 - High-Frequency Applications: Develop products such as expanding applications for microwave amplifiers for semiconductor production equipment, with a prospect of two to three years ahead.

Progress

- In FY2023, orders received and sales are expected to increase in the defense business due to an increase in the maintenance budget for defense equipment in line with the expansion of the national defense budget.
- In the communication & control equipment business, sales will also increase because antenna directioning systems for broadcasting, a project carried over from the previous fiscal year, are sold.
- Operating profit is expected to turn positive with the increase in sales.







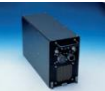












Future Measures

- Defense equipment: Focus on activities to win orders for development projects for next-generation fighter aircraft.
- Maritime traffic equipment: Expand sales of VTS radars for overseas markets.
- Inertial sensor and applied equipment: Increased sales of straight-line assistance for agricultural vehicles for agricultural machinery by upgrading capacity by switching to new sensors.
- High-frequency application equipment: New development of microwave amplifiers for semiconductor production equipment and development of general-purpose high-power microwave power supply.
- Communication & control equipment: Promote the development of new products for the government and broadcasting markets.

TOKYO KEIKI's defense business

The defense budget has increased since FY2023. We would like to introduce the main defense products in charge of the defense business of TOKYO KEIKI.

- In the defense business, we deliver products for aircraft, ships, equipment for vehicles, and ground radar equipment operated by the GSDF, MSDF, and ASDF.
- Main areas of business are divided by "development and manufacturing of products" and "maintenance and repair."
- Aircraft, ships, and other equipment are used for a long period of time. As such, after delivery, maintenance work including repair work, replacement of parts and performance improvement, is continuously carried out. We also develop, manufacture and sell test equipment to check and maintain the quality of our products.

Category	Our product	Function	Installation/Usage Example
Aircraft	Radar warning receivers / Electronic Support Measures  For F-15	A device to warn aircrews of a threat by detecting the radio emissions transmitted by other party's radar systems.	 F-15  F-2  UH-60  SH-60K  UH-2, etc.
	Attitude and heading reference systems / Inertial sensors  For OH-1	Systems for measuring the attitude of an aircraft.	 F-15  US-2  OH-1
	Air data computer	Device for measuring an aircraft's bearing, altitude, speed, etc.	 F-15  F-2  T-4 (◀ including blue impulse machine) Photo Source:
Vessels/ Submarines	Inertial navigation systems  Ring laser gyro	Systems that measure and calculate a vessel's attitude so as to determine the position and speed with extreme precision.	 MOGAMI-class frigate  Oyashio-class submarines and others
	Dead reckoning equipment / Tactical Chart Plotter	A device to display strategies and status on electronic chart display systems.	
Vehicle	Operation panel	Control panels for occupants.	 Type-10 tank  Type-90 tank  Type-16 maneuver combat vehicle
On the ground Radar facility	Various components	Devices that generate radar waves, etc.	Site radar
Test equipment	Inspection and test equipment	Device for determining the quality of products.	We support and supply products other than our originals. As for F-15 fighters, we are responsible for repairing comprehensive test equipment.

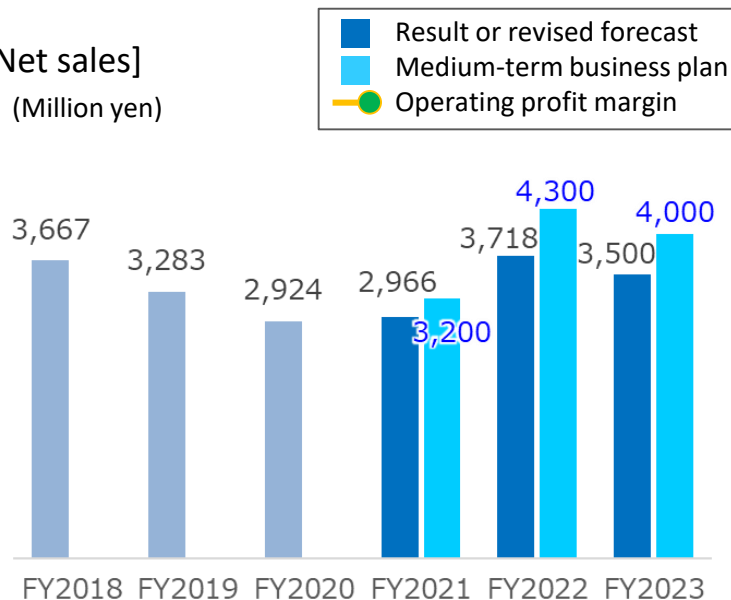
GSDF Web Website:
<https://www.mod.go.jp/gsdf/equipment/index.html> ([Link](#))

MSDF Web Website:
<https://www.mod.go.jp/msdf/equipment/> ([Link](#))

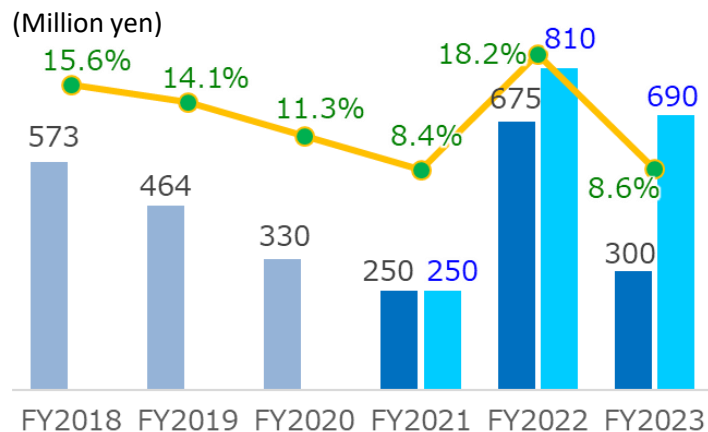
ASDF Web Website:
<https://www.mod.go.jp/asdf/equipment/index.html> ([Link](#))

Other Businesses (Inspection Systems, Railway Maintenance)

[Net sales]
(Million yen)



[Operating profit]
(Million yen)



Medium-Term Business Plan

- Inspection Systems business
 - Focus on expanding market share, focusing on our forte, the gravure printing inspection market for flexible packaging*.
 - Strongly promote globalization.
- *Flexible packaging: packaging materials consisting of thin, flexible materials such as plastic films, paper, and aluminum foil.
- Railway Maintenance business
 - R&D and launch next-generation strategic products that will lead to the safety and security of railway transportation as a social infrastructure, as a core product following rail inspection cars.
 - Create new inspection services.

Progress

- In FY2023, sales and profits decline year on year due to a decrease in the number of delivery for ultrasonic rail inspection cars in Railway Maintenance business. However, the number of orders is expected to increase.
- Inspection Systems business is expected to maintain sales at the same level as the previous fiscal year because of the launch of new products, despite a tendency to restrain capital expenditure in the printing market.

Future Measures

- Railway Maintenance business
 - Launch of a new labor-saving system for track inspection to be installed in railway vehicles.
 - Expand sales of new switch profile gauges.
- Inspection Systems business:
 - Launch bag-making inspection equipment and plate reconciliation machines.
 - Expand sales channels in overseas markets such as interior decorative materials, cosmetics, and drug bags markets.

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4. Topics

References

Business Trends

Our Business

Our mission

**Achieve safety for society and happiness for people
through proprietary technology
Centered on measurement, recognition, and control.**

Our values

Untiring challenge

TOKYO KEIKI Vision 2030 Progress

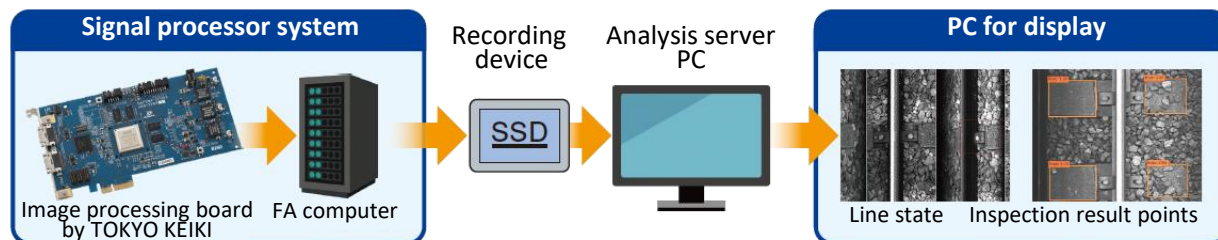
Growth Drivers

	Business Activities	Progress
Edge AI business	<ul style="list-style-type: none"> Create new businesses through the conversion of DAPDNA, our proprietary dynamic reconfigurable processors, to edge-AI. 	<ul style="list-style-type: none"> ✓ Developed tools for putting AI programmes on DAPDNA. ✓ Published development tools and began sample shipments. Raise awareness at exhibitions and other events to expand the fields of application.
Hydrogen & Energy Business	<ul style="list-style-type: none"> Systematize the hydrogen compressor. Enter hydrogen related fields other than compression equipment. 	<ul style="list-style-type: none"> ✓ Entered into a business alliance with Sunny Ltd., as a step toward promoting packaged sales of hydrogen filling stations. ✓ Developed hydrogen compressors for both mobile and stationary hydrogen filling stations, and developed small hydrogen filling system. ✓ Plan to develop hydrogen manufacturing systems.
Aerospace business	<ul style="list-style-type: none"> Expand sales of microwave amplifiers for small SAR satellites. Develop a business that utilizes satellite image data in the existing markets of our business. 	<ul style="list-style-type: none"> ✓ Began commercial production of microwave amplifiers for small SAR satellites. ✓ Entered into a partnership with Synspec Inc. for commercial production of small SAR satellites, and established a new space building within Nasu Plant for satellite assembly. (Scheduled for completion in May 2023)
Railway business	<ul style="list-style-type: none"> Expand railway maintenance business. Promote labor-saving infrastructure inspections. 	<ul style="list-style-type: none"> ✓ Developed a new labor-saving track inspection system installed in railway vehicles to achieve personnel savings by means of automatically monitoring railway tracks and determining deterioration, usually performed only by maintenance patrol work by humans.

The drawing of Nasu Plant
“Space Building” at completion



Labor-saving track inspection system



TOKYO KEIKI Vision 2030 Progress

Strengthen core areas

<p>Promoting open innovation with partners who share our vision of the future</p>	<ul style="list-style-type: none"> ● Entered into a business alliance with Sunny Ltd. to develop the hydrogen business. ● Entered into a partnership with Synspec Inc. with the aim of expanding the space business. ● Started joint research and development of marine system products with Nabtesco Corporation to achieve lower fuel consumption and labor savings for vessels. ● Participated in the fully autonomous ship program promoted by the Nippon Foundation, aiming to resolve the shortage of crew members and reduce the work burden of officers in the shipping industry. ● Participated in the Wind Challenger Project led by Mitsui O.S.K. Lines, Ltd. and Oshima Shipbuilding Co., Ltd., to make the energy used to drive ships greener.
<p>Creating a motivating and pioneering culture</p>	<ul style="list-style-type: none"> ● Introduced a new personnel system to promote reforms to create a culture of taking on challenges, by changing the evaluation, promotion, and wage system as a human resources development system for growth. ● Implement a pay raise in FY2023 to improve job satisfaction.
<p>Solicit workplace innovation</p>	<ul style="list-style-type: none"> ● Established “Future Design Unit” within the Sustainability Office as a field for employees to propose innovation on their own. In April 2023, the Unit was reorganized into the Business Development Office to create more specific innovations.

TOKYO KEIKI Vision 2030 Progress

High-level management practices

Sustainability management	<ul style="list-style-type: none"> Established the Sustainability Committee and the Sustainability Office. At the center of our Group, the Sustainability Office plans and promotes measures involving sustainability management, and the Sustainability Committee functions as a meeting body that discusses and shares sustainability management-related policies and measures, and executes decision across the Group. Established the sustainability policy and identified “materiality” issues. Published sustainability reports. Announced our endorsement of TCFD recommendations and started initiatives in line with the recommendation’s framework of governance, risk management, strategy, and metrics and targets. Established the environmental target for FY2030 to reduce Scope 1 and 2 GHG emissions by 37% in comparison with FY2013.
ROIC management	<ul style="list-style-type: none"> With a view to achieving a ROE10% target under Vision 2030, we are estimating ROIC for each business division to improve the capital efficiency of our businesses. We are scrutinizing unprofitable businesses within each business division as recognizing the need to review our business portfolio.
DX initiatives (Internal system renovation)	<ul style="list-style-type: none"> Promoted the project of backbone systems integration.

Strategies for achieving objectives of medium-term plan

Financial strategy	<ul style="list-style-type: none"> Reduced cross shareholdings to expand cash-generating capacity while strengthening growth investments. As for shareholder returns, maintain stable and continuous dividends with a view to balancing growth-oriented investments with our financial base, taking into account our business performance and past dividend results. ✓ We deliver an ordinary dividend of ¥30 per share for FY2022 and ¥32.5 for FY2023.
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Business Trends

Our Business

Topic 2

TOKYO KEIKI's VTS Radar Contributes to Safe Traffic Control for Ships

The VTS*¹ Radar by TOKYO KEIKI, which runs nationwide in Japan, has been selected as global standards.

[Added our VTS radar spec to IALA*² GUIDELINE for producing requirements for radar]

- TOKYO KEIKI's VTS system, which is operated by the Japan Coast Guard's Vessel Traffic Service Centers, uses the world's first Ku-band and solid-state radars for marine traffic control.
- Higher-frequency Ku-band radars are more capable of identifying objects than those of X-band commonly used in Europe, and allow more accurate monitoring of vessels.
- This time, Ku-band was newly included in the functional requirements for radar of the guideline issued by IALA, so that **our VTS radar is positioned as a worldwide standard model**.
- **IALA's guidelines have a major impact on the selection of VTS radars, and we expect to see greater recognition of our products.**
- In FY2023, we plan to participate in an exhibition in Brazil and will focus on further global expansion.

*1 VTS :Vessel Traffic Services

*2 IALA:International Association Of Marine Aids To Navigation And Lighthouse Authorities



Ku bracelet solid-state radars
for VTS



VTS radar operating
in Europe

[Osaka Bay Vessel Traffic Service Center's VTS replacement]

- In Japan, the central office of the Osaka Bay Vessel Traffic Services Center was relocated from Awaji City to Kobe City to strengthen the functions. Accordingly, we replaced its VTS system and added Ku-band solid-state radars.
- Our VTS systems have been delivered to all seven Vessel Traffic Service Centers of the Japan Coast Guard and contributes to the safety and security of ports nationwide.



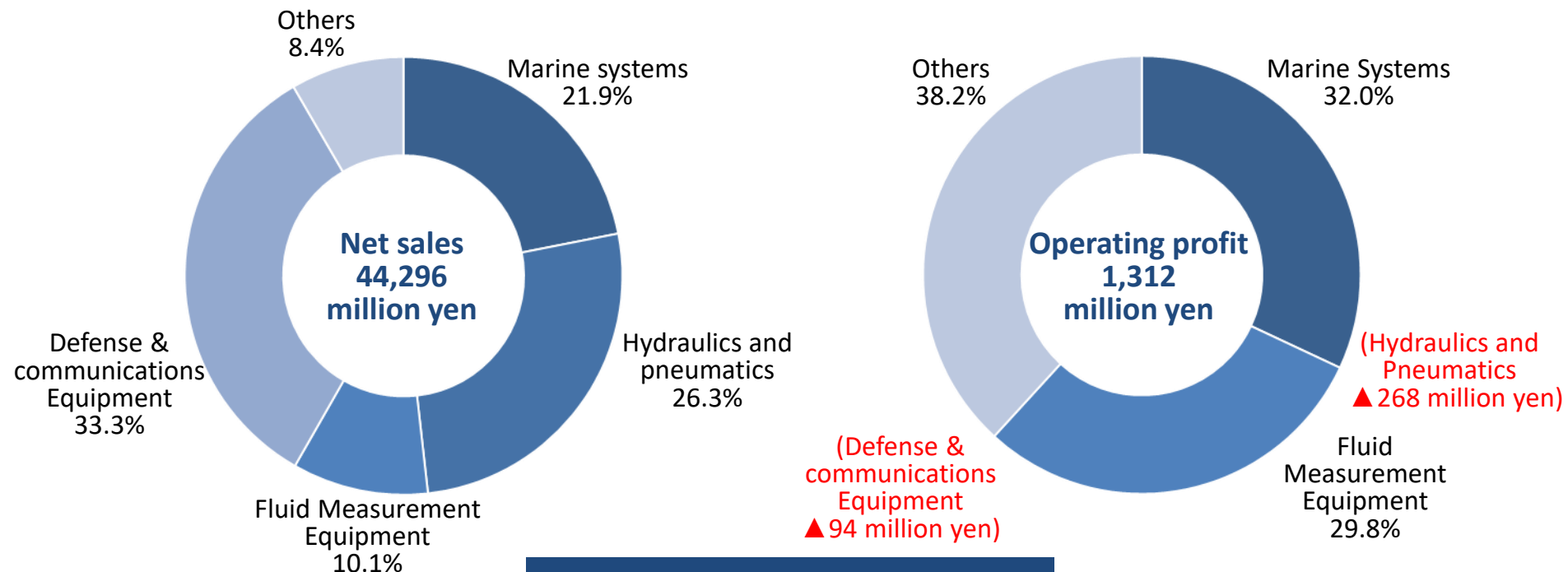
The newly launched
Osaka Bay Vessel Traffic
Service Center

References

Business Trends

Our Business

Segment Ratio of Net Sales and Operating Profit for FY2022



Business characteristics

- ◆ Due to the nature of the business, Fluid Measurement Equipment Business, Defense and Communications Equipment Business, and Others in Railway Maintenance Business have sales and earnings weighted in the second half, while there is little seasonality in Marine Systems Business and Hydraulics and Pneumatics Business.
- ◆ Performance of Hydraulics and Pneumatics Business is affected by the economy.
- ◆ In Defense and Communications Equipment Business, the profit margin of Defense equipment business is low, but profits tend to fluctuate greatly depending on types of projects, as well in Marine traffic equipment business. Therefore, the Company is working to improve and stabilize the profit margin by expanding sales in Communication & control equipment business.

Changes in Net Sales and Operating Profit

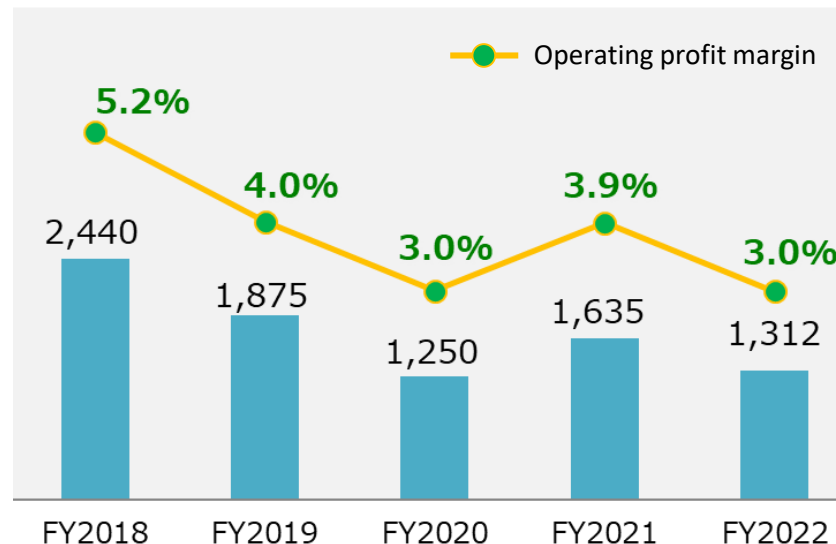
【Net sales】

(Million yen)



【Operating profit】

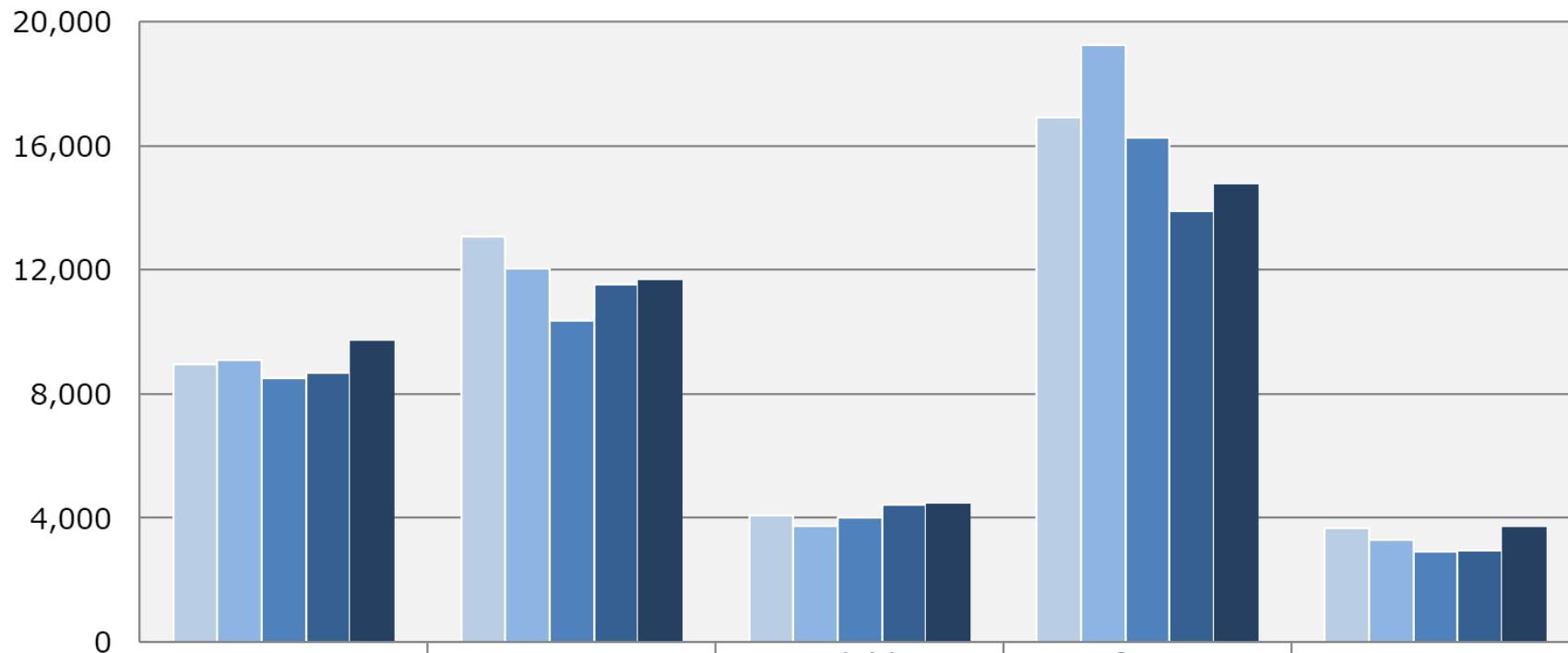
(Million yen)



(Million yen)	FY2018	FY2019	FY2020	FY2021	FY2022
Net sales	46,692	47,440	42,081	41,510	44,296
Operating profit	2,440	1,875	1,250	1,635	1,312
Ordinary profit	2,660	2,011	1,458	1,926	1,687
Profit attributable to owners of parent	1,936	1,425	945	1,493	873
Operating profit margin	5.2%	4.0%	3.0%	3.9%	3.0%

Changes in **Net Sales** by Segment

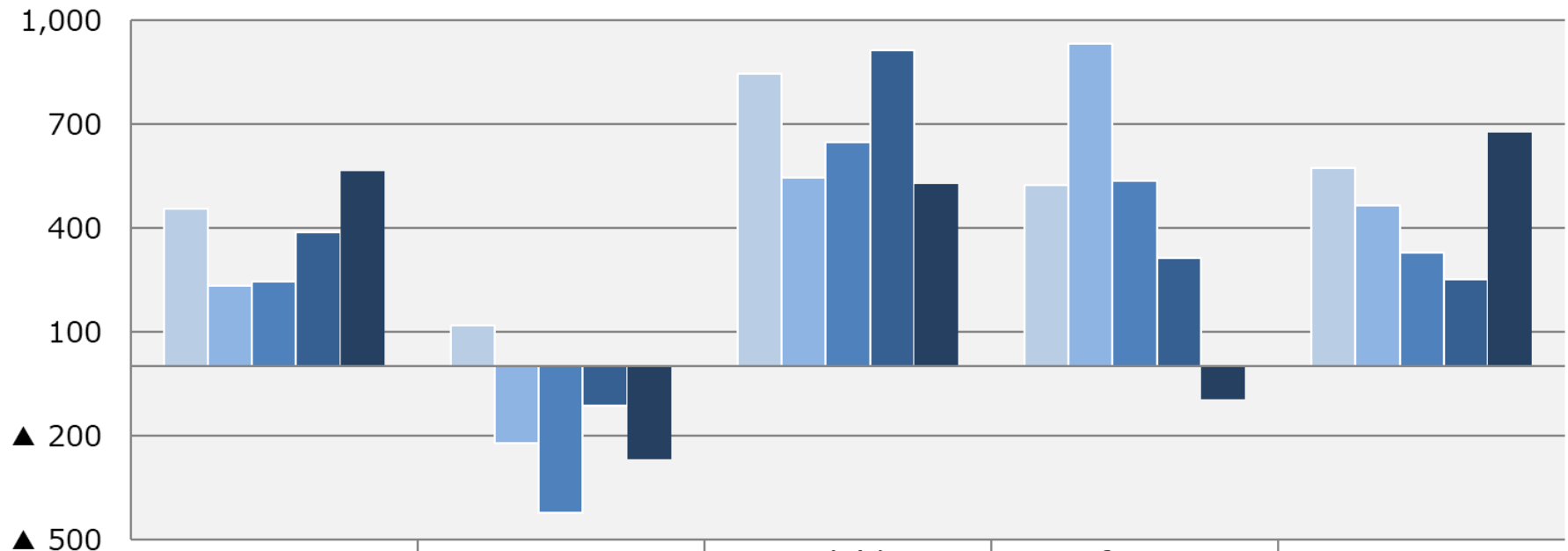
(Million yen)



	Marine Systems	Hydraulics and Pneumatics	Fluid Measurement Equipment	Defense & Communications Equipment	Others
FY2018	8,949	13,064	4,101	16,909	3,667
FY2019	9,094	12,050	3,745	19,264	3,283
FY2020	8,522	10,351	4,003	16,281	2,924
FY2021	8,700	11,526	4,432	13,884	2,966
FY2022	9,700	11,658	4,452	14,765	3,718

Changes in **Operating Profits** by Segment

(Million yen)

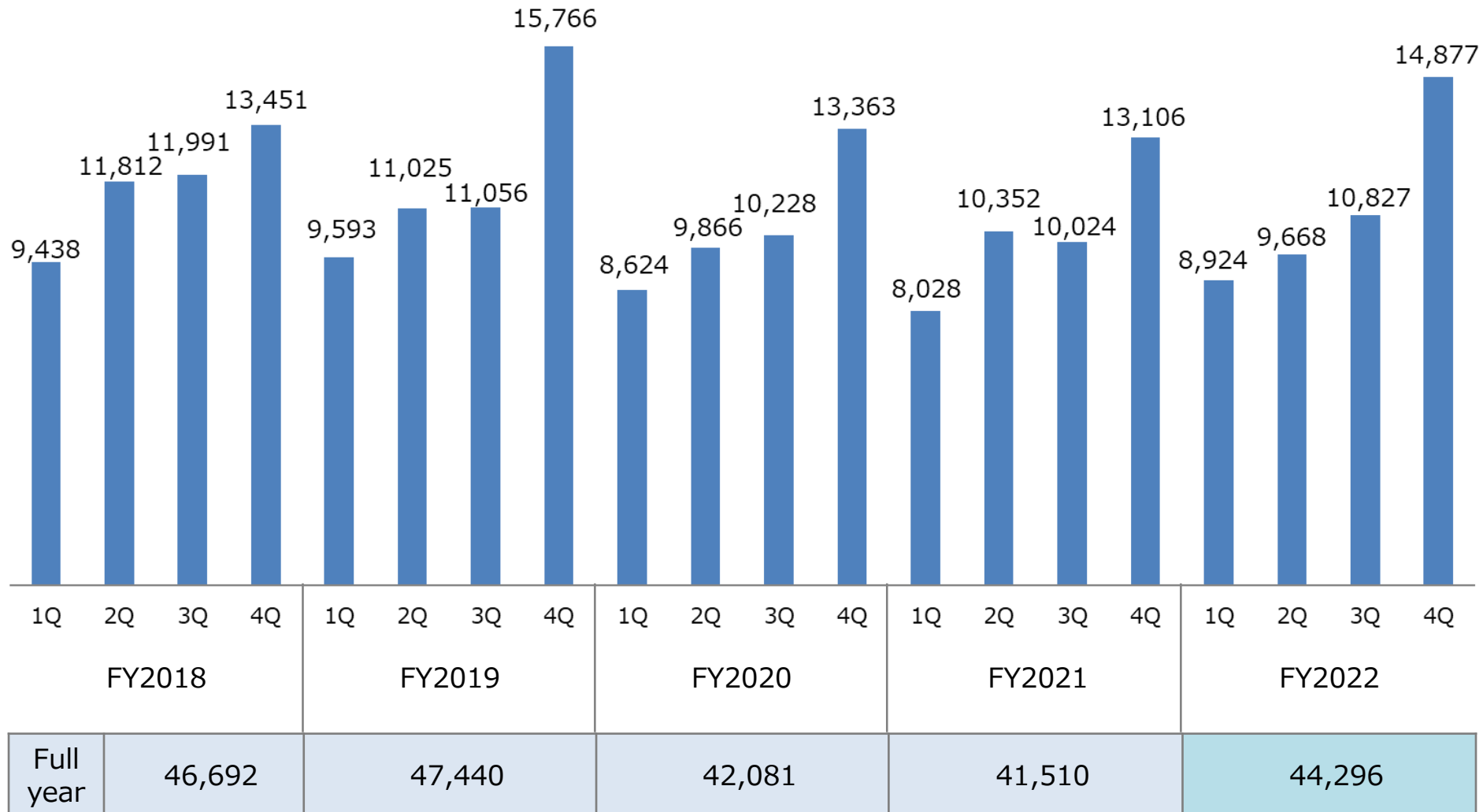


	Marine Systems	Hydraulics and Pneumatics	Fluid Measurement Equipment	Defense & Communications Equipment	Others
■ FY2018	456	118	845	525	573
■ FY2019	233	▲ 223	545	931	464
■ FY2020	246	▲ 424	647	537	330
■ FY2021	388	▲ 115	915	312	250
■ FY2022	565	▲ 268	527	▲ 94	675

(Segment operating profit are before adjustments.)

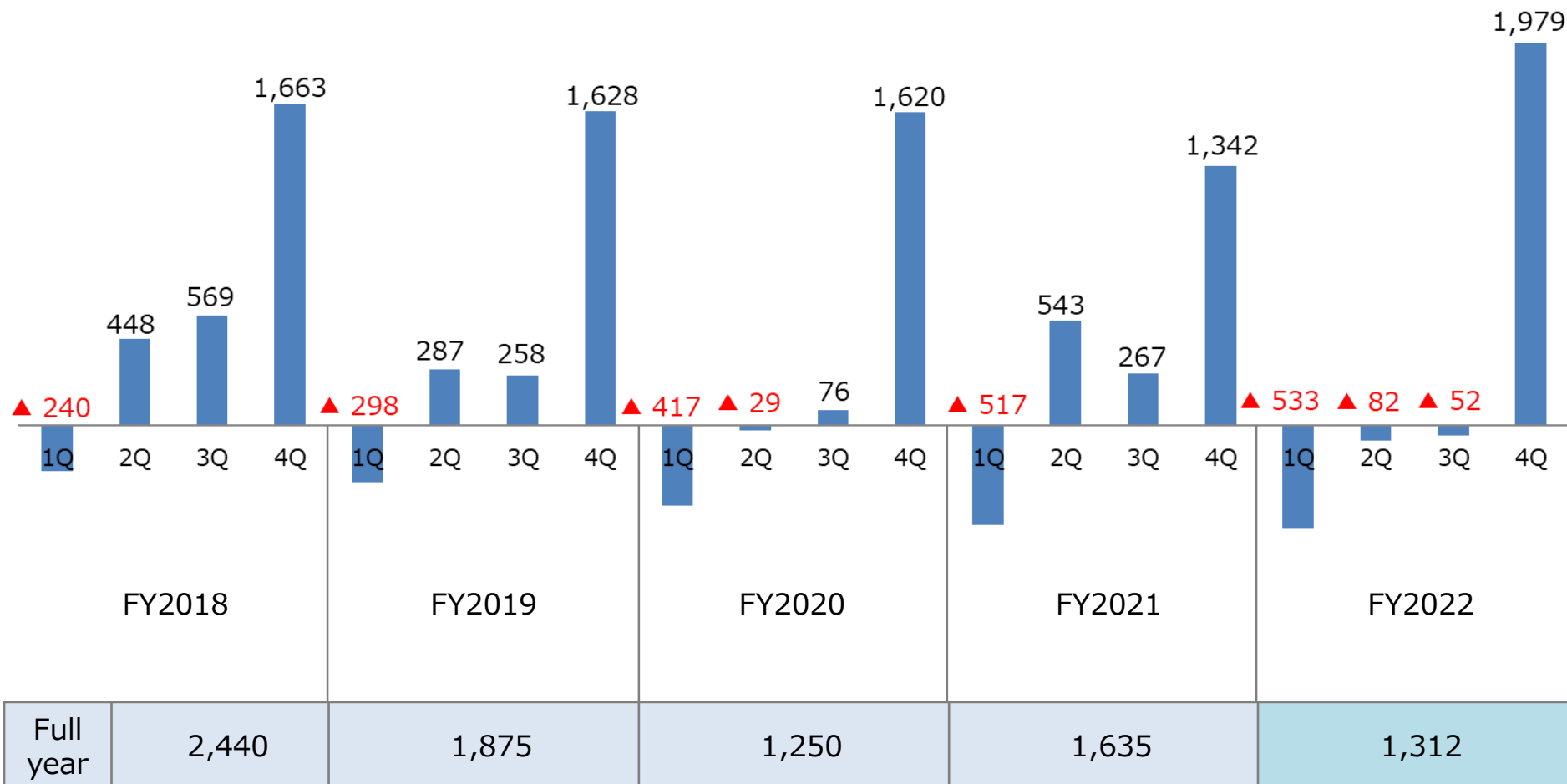
Quarterly Changes in **Net Sales**

(Million yen)



Quarterly Changes in Operating Profits

(Million yen)



References

Business Trends

Our Business

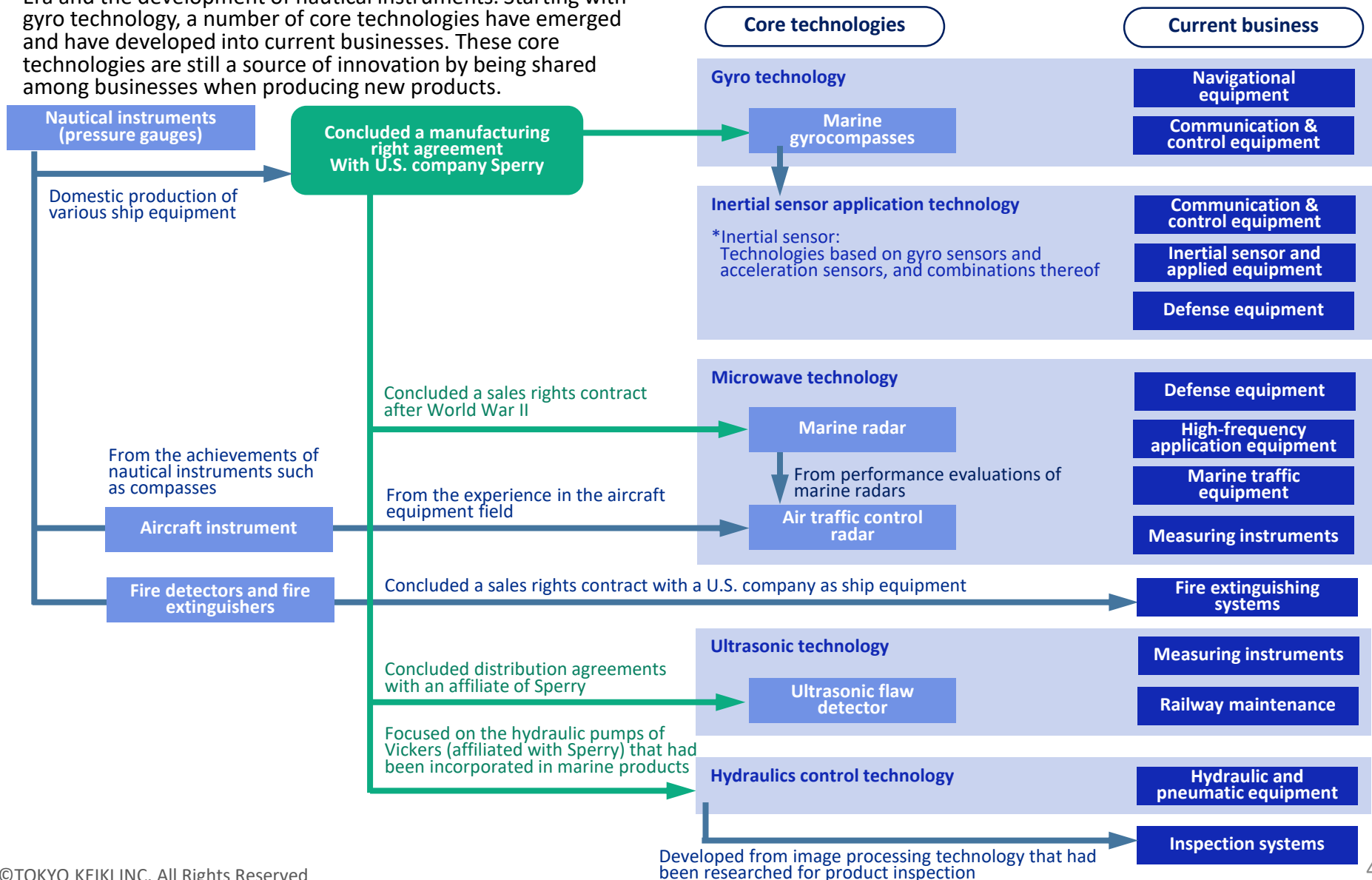
Principal Businesses of TOKYO KEIKI Group

TOKYO KEIKI Group's businesses are divided into four segments and others, and there are 11 businesses within these segments.

Segment (4+ Others)	Business (11)
Marine Systems Business	Navigational equipment
Hydraulics and Pneumatics Business	Hydraulic and pneumatic equipment
Fluid Measurement Equipment Business	Measuring instruments
	Fire extinguishing systems
Defense & Communications Equipment Business	Defense equipment
	Marine traffic equipment
	Inertial sensor and applied equipment
	High-frequency application equipment (microwave applied equipment)
	Communication & control equipment
Others	Inspection systems
	Railway maintenance

Creation and Deployment of Core Technologies



The business of the TOKYO KEIKI Group goes back to the Meiji Era and the development of nautical instruments. Starting with gyro technology, a number of core technologies have emerged and have developed into current businesses. These core technologies are still a source of innovation by being shared among businesses when producing new products.








[Marine Systems Business]

Navigational equipment	Contributing to safe navigation and energy-saving ship steering.
	<ul style="list-style-type: none"> ■ Offering a complete lineup of essential marine systems for ships and supplies them globally. ■ Pioneer in marine systems as the the first in Japan to manufacture marine radar, gyrocompasses, and autopilots. ■ More than 60% of the global commercial vessels market and more than 80% of the domestic coastal vessels market. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Autopilots for steering systems, such as automatic rudders, etc.</p> </div> <div style="text-align: center;">  <p>Gyrocompasses that indicate direction of ship's heading</p> </div> <div style="text-align: center;">  <p>Fiber Optic Gyro (FOG) without moving parts for periodic replacement of the sensor</p> </div> <div style="text-align: center;">  <p>Electronic Chart Display and Information Systems (ECDIS) that display navigational charts in real time</p> </div> </div>
	<ul style="list-style-type: none"> ■ As a leader in marine gyrocompasses and autopilots, we have also participated in the autonomous ship development project and the next-generation wind powered vessel project, which contributes to reducing GHG emissions. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>    "DFFAS Project for Realizing Autonomous ships" </p> </div> <div style="text-align: center;">  <p>  "Wind Challenger Project" </p> </div> </div>

[Hydraulics and Pneumatics Business]

Hydraulic and pneumatic equipment	Supporting the manufacturing floor and frontline of infrastructure.		
For industrial machinery	<p>■ Hydraulic and pneumatic equipment with excellent energy saving performance and controllability to support manufacturing.</p> <p>■ Approximately 40% of the domestic market for plastic injection molding machines used in motor vehicle manufacturing.</p> <div> <div data-bbox="571 496 745 615"> <p>Low-noise fixed displacement vane pump widely used in general industrial machinery</p> </div> <div data-bbox="942 472 1155 591"> <p>Solenoid directional valves controlling velocity and pressure proportionally</p> </div> <div data-bbox="1300 501 1622 686"> <p>Compact power unit widely used as a hydraulic power source for machine tools and general industrial machinery</p>  </div> </div>		
For construction machinery	<p>■ Combining hydraulic equipment and electronic products to support infrastructure development.</p> <div> <div data-bbox="591 786 857 1015"> <p>High-capacity and quick response cartridge valves used in construction machinery</p> </div> <div data-bbox="1000 779 1309 939"> <p>Electric direct control piston pumps for construction machinery</p> </div> <div data-bbox="1570 772 1740 919"> <p>Displays for construction machinery</p> </div> </div>		
Utilization of hydrogen energy	<p>■ Promoting hydrogen-energy use by hydraulic-drive hydrogen compressors for hydrogen filling stations.</p> <div> <div data-bbox="664 1086 954 1365"> <p>Hydrogen compressors for mobile hydrogen filling stations</p> </div> <div data-bbox="1126 1258 1443 1350"> <p>Hydrogen compressors for stationary hydrogen filling stations</p>  </div> </div>		

[Fluid Measurement Equipment Business]

Measuring instruments	Protecting life and human life: Contributing to the safety of life through water resource management and river disaster prevention.
<p>Flow monitoring</p>	<ul style="list-style-type: none"> ■ The first pioneer in the world to commercialize ultrasonic flowmeters. ■ Our ultrasonic flowmeters, the first in the world to be put into practical use, are used to monitor flow rates in water supply and sewerage systems as well as agricultural water pipelines. ■ Over 60% of the market for domestic water and sewerage systems and agricultural water management. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>High-precision ultrasonic flowmeters for monitoring water supply, agricultural water, and industrial water</p> </div> <div style="text-align: center;">  <p>Microwave level gauges widely used in food manufacturing plants and industrial plants in oil tanks, etc.</p> </div> </div>
<p>Land disaster prevention</p>	<ul style="list-style-type: none"> ■ Systems use microwave level gauges to protect lives from the spate of river and urban flooding. <div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;">  <p>Crisis management water gauges that provide early detection of rising river levels</p> </div> <div style="text-align: center;">  <p>Flood-control level gauges that indicate the risk of urban flood damage caused by sewage overflowing from manholes</p> </div> </div>
Fire extinguishing systems	Protecting against fires: Gas-agent fire extinguishing systems are widely used in facilities that are strictly prohibited from getting wet
	<ul style="list-style-type: none"> ■ Miscellaneous gas-agent fire extinguishing systems, developed from our Japan's first inert gas fire extinguisher systems, contribute to safe living. <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <p>Gas-agent fire extinguishing systems are widely used in parking garages, museums, art museums, office buildings and factories with printing machinery, etc., where the use of water or foam-based fire extinguishers are not suitable.</p>  </div>

[Defense & Communications Equipment Business]

Defense equipment	Contributing to national defense: Our strength lies in microwave application technologies and inertial sensor technologies.
	<p>■ Development, production, and repair and maintenance of defense avionics equipment and warship navigation systems.</p> <div data-bbox="421 368 676 559"> </div> <p>▲ Photo courtesy of Satoshi Akatsuka, IKAROS PUBLICATIONS, LTD.</p> <p>Radar warning receivers that instantly analyze radio waves around aircraft and warn pilot of threat radar signals</p> <div data-bbox="703 419 911 559"> </div> <p>Inertial navigation system using high-precision ring laser gyro, installed on submarines that cannot use any external signals such as GPS for azimuth measurement</p> <div data-bbox="1070 357 1317 625"> </div> <p>Air data computer (ADC) that calculates the altitude and speed of the aircraft. This is mounted on Blue Impulse aircrafts.</p> <div data-bbox="1518 376 1835 602"> </div>
Marine traffic equipment	Contributing to safe vessel navigation: Providing maritime monitoring systems that can be called a “marine traffic control tower”.
	<p>■ Providing VTS*¹ systems including the maritime surveillance radars and AIS*² information management equipment, which are required for traffic control operations on congested waterway. Domestic VTS system market share 100%.</p> <p>■ Started delivering VTS radars to the gulf coasts and rivers in Europe.</p> <div data-bbox="421 1062 691 1265"> </div> <p>Maritime surveillance radar installed at “Umihotaru” in Tokyo Bay.</p> <div data-bbox="923 1065 1201 1259"> </div> <p>VTS systems responsible for monitoring operations at Vessel Traffic Service Centers deployed in seven ports across Japan</p> <div data-bbox="1394 1076 1891 1230"> <p>*1 VTS:Vessel Traffic Services</p> <p>*2 AIS:Automatic Identification System System for exchanging information between vessels and between vessels and navigation aid facilities</p> </div>

[Defense & Communications Equipment Business]

Inertial sensor and applied equipment	Promoting Smart Agriculture: Realizing by combining inertial sensors and control technologies.
	<ul style="list-style-type: none"> ■ For linear-motion assistance for agricultural vehicles, gyro-technology, inertial-sensor, and proprietary software technologies are integrated. ■ The share of accelerometers used in seismometers for Japan Meteorological Agency is approximately 80%. <div data-bbox="479 432 691 572"> </div> <div data-bbox="710 449 981 561"> <p>Seismic accelerometer which is essential for measuring seismic magnitude</p> </div> <div data-bbox="1222 392 1497 572"> </div> <div data-bbox="1516 449 1825 561"> <p>Linear-motion assistance for agricultural vehicles to reduce the burden of working on the farm</p> </div>
High-frequency application equipment	Entry into advanced industries: Contributing to semiconductor manufacturing equipment components and space business by making full use of microwave application technologies.
	<ul style="list-style-type: none"> ■ Solid-state microwave power supplies used in semiconductor production equipment to achieve semiconductor miniaturization. ■ Providing microwave amplifiers that amplify radar signals emitted from SAR satellites toward the earth's surface. <div data-bbox="479 818 653 978"> </div> <div data-bbox="672 849 1020 961"> <p>Solid-state microwave power supply used for next-generation semiconductor production equipment</p> </div> <div data-bbox="1184 789 1497 978"> </div> <div data-bbox="1516 878 1883 961"> <p>Synthetic aperture radar (SAR) satellite with the microwave amplifier onboard</p> </div>
Communication & control equipment	Contributing to broadcasting quality improvement: Implementing by integrating technologies such as gyro sensors, accelerometers, and magnetic azimuth sensors.
	<ul style="list-style-type: none"> ■ Realizing stable image transmission by attitude control equipment mounted on news helicopters and relay vehicles. ■ Antenna directioning systems are mounted on more than 90% of news helicopters of the national TVs, leading to reliable transmission of aerial images. <div data-bbox="440 1229 633 1368"> </div> <div data-bbox="653 1239 1290 1350"> <p>Antenna directioning systems which continuously grasp the position and attitude directions of helicopters, control relay antennas towards receiving stations, and transmit videos without interruption</p> </div> <div data-bbox="1348 1196 1468 1368"> </div> <div data-bbox="1487 1239 1883 1350"> <p>Camera stabilizer installed on relay vehicles for marathons and news helicopters used by broadcasting stations</p> </div>

[Others (Inspection/Railroad)]

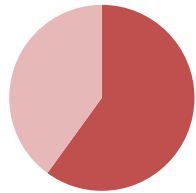
Inspection Equipment	Contributing to improving the quality of printing: Detecting printing defects and material surface problems through high-precision image processing technologies.
	<ul style="list-style-type: none"> ■ Realizing high-speed and real-time image processing with in-house developed chips. ■ Automatically detecting printing errors and foreign matter contamination at high speed to improve work efficiency and eliminate material waste. ■ Top share of the domestic market for gravure printing inspection for flexible packaging*. <p>*Flexible packaging: packaging materials consisting of thin, flexible materials such as plastic films, paper, and aluminum foil.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Print inspection system that ensures print quality by detecting print-defects</p> </div> <div style="text-align: center;">  <p>Material inspection equipment that detects flaws and foreign matter contaminations in plain materials such as films, non-woven fabrics, and metal foils</p> </div> </div>
Railway Maintenance	Contributing to safe operations of railways: Utilizing ultrasonic technology for railway maintenance.
Business at TOKYO KEIKI RAIL TECHNO INC., our subsidiary	<ul style="list-style-type: none"> ■ Ultrasonic rail inspection cars are in operation at more than 70% of domestic railway companies. ■ Supporting railway maintenance work with maintenance equipment and maintenance services such as ultrasonic rail flaw detectors and switch profile gauges. <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Ultrasonic rail inspection car that performs non-destructive inspections using ultrasonic technology</p> </div> <div style="text-align: center;">  <p>Ultrasonic rail flaw detector that inspects rail flaws in detail</p> </div> <div style="text-align: center;">  <p>Switch profile gauge that simultaneously measures rails wear, crossing wear, and track geometry</p> </div> </div>

Share in key niche markets

*In-company investigations

【Marine Systems Business】

Marine gyrocompasses, Marine autopilots

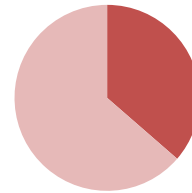


Global commercial vessels **Over 60%**

Domestic costal vessels **Over 80%**

【Hydraulics and Pneumatics Business】

Hydraulic equipment

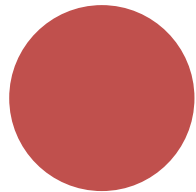


For plastic injection molding machines in Japan

About 40%

【Defense & Communications equipment Business】

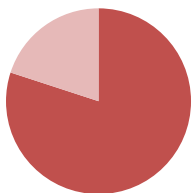
Radars for maritime traffic, VTS systems



VTS systems for vessel traffic service Centers in Japan **100%**

Accelerometers for seismometers

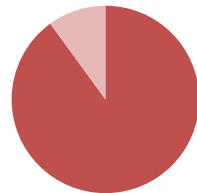
For Japan Meteorological Agency



About 80%

Antenna directioning systems

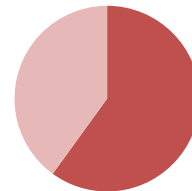
For broadcasting helicopters of domestic TV stations



Over 90%

【Fluid Measurement Equipment Business】

Ultrasonic flowmeters

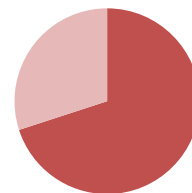


-World's first practical use
-For domestic water and sewerage systems and agricultural water management

Over 60%

【Others】

Ultrasonic rail inspection cars



For JR and other private rail operations in Japan

Over 70%



TOKYO
KEIKI