

First-Half Results for Fiscal Year 2021 (Ending March 31, 2022)

Nihon Dempa Kogyo Co., Ltd.

November 16, 2021

[Note]

Statements made in this presentation with respect to our current plans, estimates, strategies, beliefs and other statements that are not historical facts are forward-looking statements about our future performance.

These statements are based on management's assumptions and beliefs in light of information currently available to it. We caution that a number of important risks and uncertainties could cause actual results to differ materially from those discussed in the forward-looking statements, and therefore you should not place undue reliance on them.

You also should not rely on the belief that it is our obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Risks and uncertainties that might affect us include, but are not limited to, fluctuation of currency exchange rates, fluctuations in demand for products, product development and production capacities, performance of affiliated companies, and other risks and uncertainties.

- 1. First-Half Results for FY2021
(Ending March 31, 2022)**
- 2. Full-Year Outlook for FY2021
(Ending March 31, 2022)**
- 3. Management Policies Going Forward
—Production Capacity Expansion Plan**

**Presented by Hiromi Katoh,
Representative Director and President**

Consolidated Financial Results (First Half)

- Profitability (excluding temporary factors) attained with operating income of ¥2.0 billion in the first half of FY2021.
- Operating income ratio (excluding temporary factors) improved to 9.1%.

(Million yen)	FY2020 1H Result	FY2021 1H Result	YoY	FY2021 1H Forecast (as of May 14)
Net Sales	17,575	22,267	+4,692	21,100
Operating Income/Loss	▲1,453	2,839	+4,292	1,800
Operating Income/Loss Ratio	▲8.3%	12.8%	+21.1%	8.5%
Operating Income/Loss (Excluding temporary factors)	▲1,077	2,025	+3,102	1,000
Operating Income/Loss Ratio	▲6.1%	9.1%	+15.2%	4.7%
Income before Income Tax	▲1,663	2,601	+4,264	1,500
Net Income	▲2,157	2,430	+4,587	1,400
Exchange Rate (against the U.S. dollar)	¥106.68	¥110.18	+3.50	¥104.00

<Temporary factors>

Cost of structural reform	▲376	▲321
Grant from Suzhou government		1,136
Temporary factors	▲376	815

*Income shown as a positive figure, cost shown as "▲"

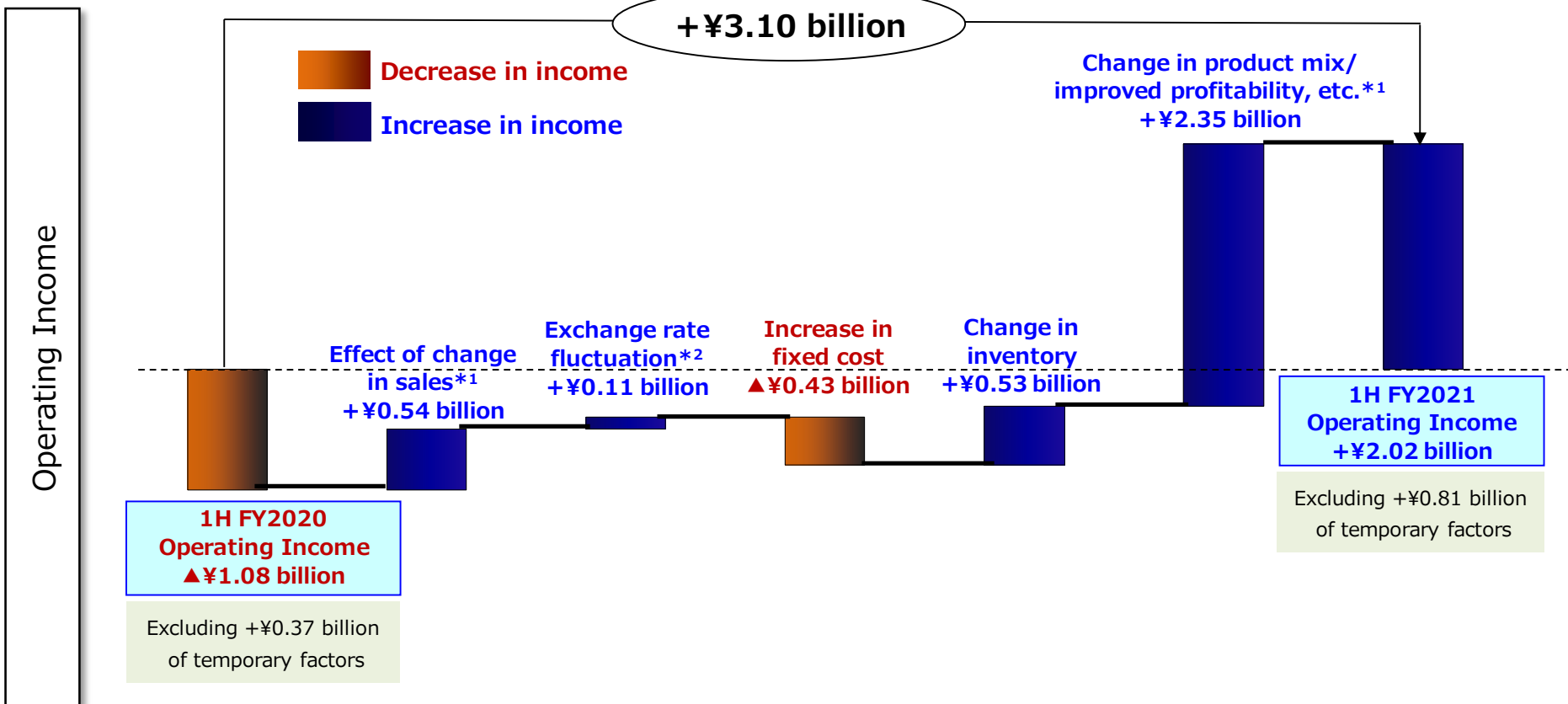
Sales by Application (Year on Year)

- Sales recovered significantly, particularly for automotive electronics.

(Billion yen)	Net Sales			Factors of Increase/Decrease
	1H FY2020	1H FY2021	YoY	
Automotive electronics	7.4	11.1	+3.7	Demand quickly recovered from 2Q last year. This year, the semiconductor shortage slowed the sales growth for some customers. However, order volume continued to exceed sales.
Industrial equipment	1.9	1.8	▲0.1	The ongoing US government restrictions on exports to major Chinese communications equipment manufacturers lead to a dip of 300 million yen in sales, however, the sales stood to a slight drop due to advance demand for 5G base stations in the United States and other countries.
Mobile communications	4.0	4.1	+0.1	Investment to expand production capacity supported higher sales of 76.8MHz crystal units with built-in thermistors for 5G smartphones. However, reduced sales of low-margin TCXOs led to a moderate rise in overall sales.
IoT	0.7	0.9	+0.2	Sales increased for communication modules for wearables and other applications.
Consumer	1.9	2.3	+0.4	Sales increased for tuning fork crystal units for computers and other applications.
Medical equipment	0.5	0.6	+0.4	Sales increased for ultra-compact crystal units for medical equipment.
Synthesizers/Sensors	0.2	0.2		
Others	1.0	1.2		
Total	17.6	22.3	+4.7	

Operating Income – Analysis of Changes from FY2020

- Contributions from improving business conditions in the automobile market and growing sales of 76.8MHz crystal units with built-in thermistors for 5G smartphones resulted in a significant improve in profitability.



Net Sales **¥17.6 billion** → **+¥4.7 billion** → **¥22.3 billion**

*1 : The effects of the improved unit price of mass-produced products are included in the “Change in product mix/improved profitability, etc.”

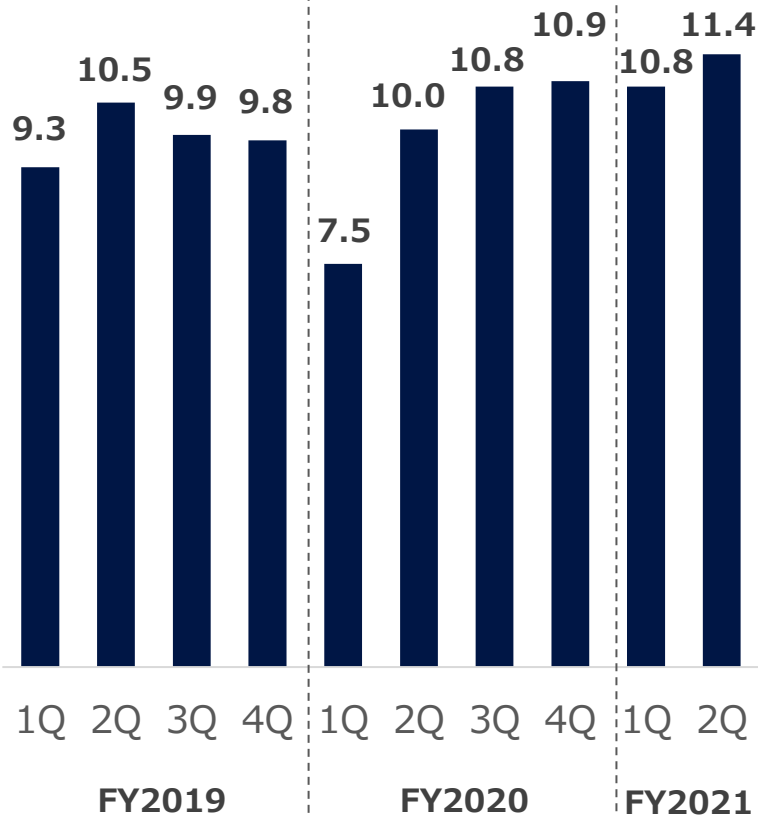
*2 : Impact of approx. ±¥60 million/year for ¥1 fluctuation; 1H of FY2020: ¥106.68, 1H of FY2021: ¥110.18

Consolidated Financial Results (Quarterly)

- Net sales have been recovering since the second quarter of FY2020, driven by automotive electronics.
- Profitability is improving due to streamlining of the corporate structure through structural reforms and progress in shifting to a focus on profitability.

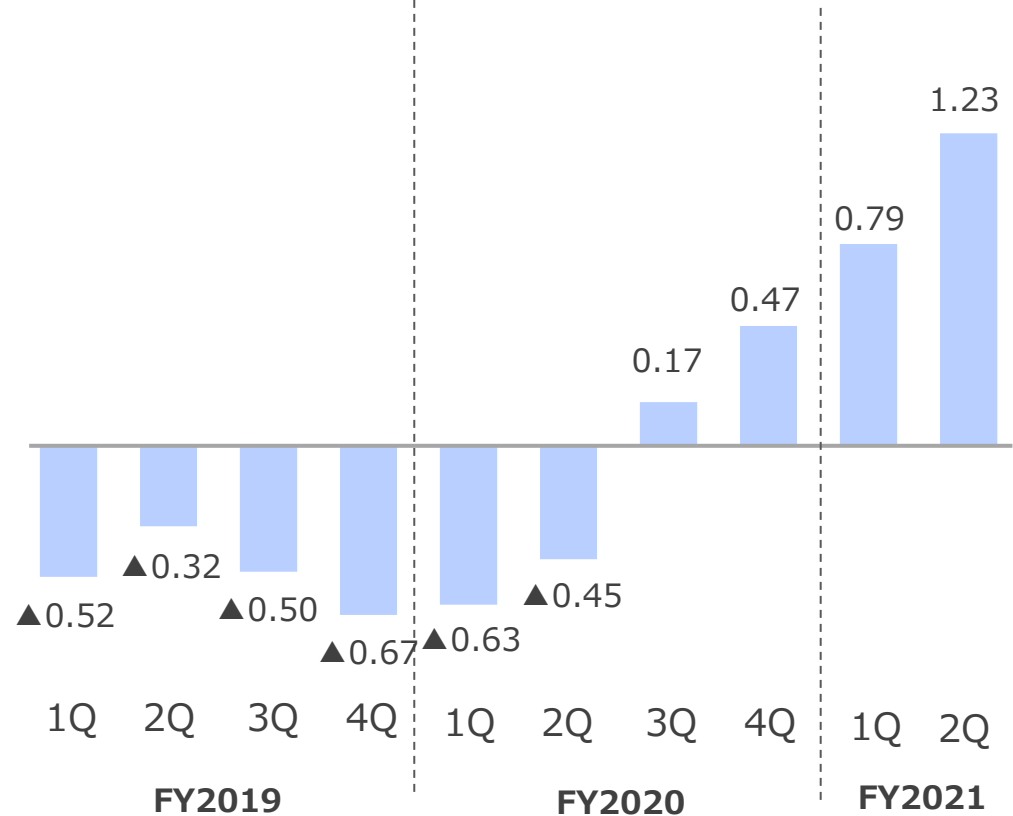
Net Sales

(Billion yen)



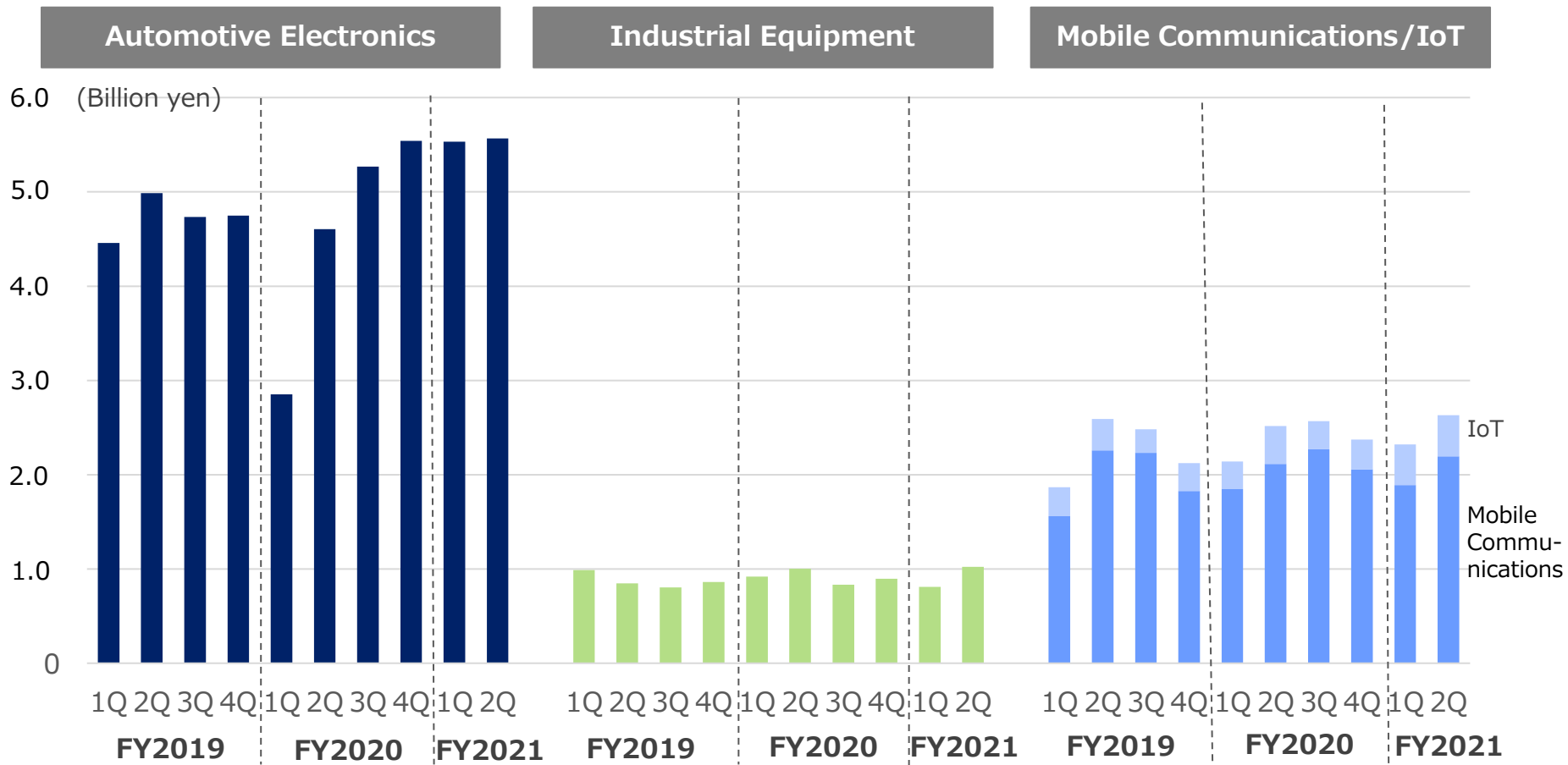
Operating Income (Excluding temporary factors)

(Billion yen)



Sales by Application – Sales by Key Application

- Sales are strong for automotive electronics, with order volume well above sales.
- Sales are growing for industrial equipment on advance demand for 5G base stations in the United States and other countries.
- In mobile communications, sales of products for 5G smartphones increased due to investment in increasing production capacity.

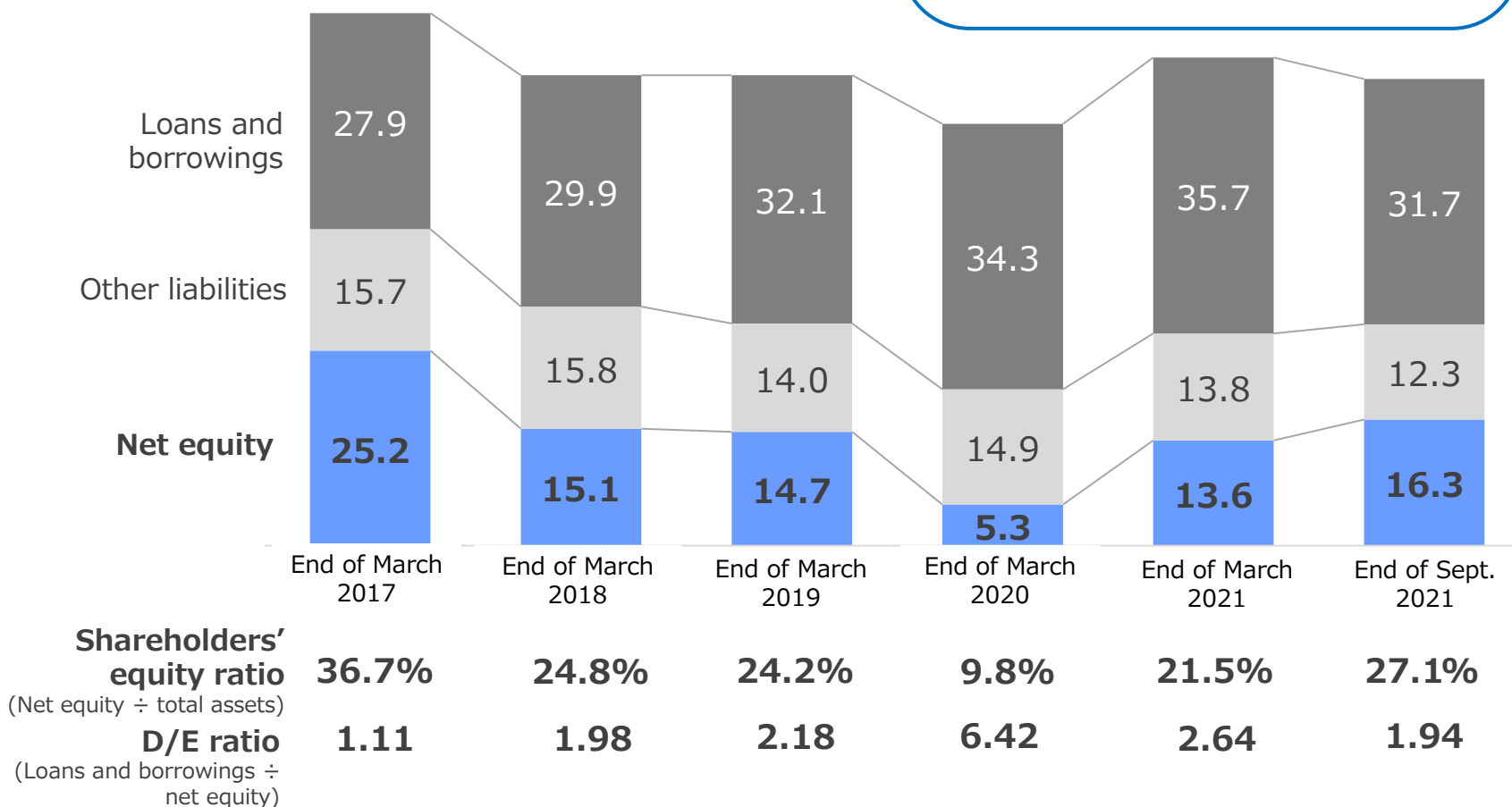


Consolidated Financial Position

- The shareholders' equity ratio at the end of September 2021 was 27.1%.
(Mid-Term Management Plan target as End of March 2023: 20%)

(Billion yen)

Class A Shares were issued in August 2020, and JIS* invested ¥5 billion.



*JIS: Abbreviation for Japan Industrial Solutions Co., Ltd.

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2. Full-Year Outlook for FY2021 (Ending March 31, 2022)

Consolidated Financial Forecast – Upward Revision to Initial Forecast



- Raised the net sales and profit forecasts by roughly ¥2.0 billion each from the initial forecast
- The year-end dividend of ¥5 per share is expected.

(Million yen)	FY2021 Full-Year Initial Forecast
Net Sales	42,500
Operating Income	2,900
Operating Income (Excluding temporary factors)	2,200
Operating Income Ratio	5.2%
Income before Income Tax	2,300
Net Income	2,100
Exchange Rate (against the U.S. dollar)	¥104.00

FY2021			Change from Initial Forecast
1H Result	2H Forecast	Full-Year Forecast	
22,267	22,233	44,500	+2,000
2,839	2,061	4,900	+2,000
2,025	2,060	4,085	+1,885
9.1%	9.3%	9.2%	+4.0%
2,601	1,799	4,400	+2,100
2,430	1,570	4,000	+1,900
¥110.18	¥111.75	¥110.97	+6.97

Dividends	Undecided
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¥0.00	¥5.00	¥5.00	+¥5.00
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*Temporary factors for FY2021

Initial forecast: ¥1,000 million in grant from Suzhou government and ¥300 million in cost of structural reform

Revised forecast: ¥1,136 million in grant from Suzhou government and ¥321 million in cost of structural reform

Consolidated Financial Forecast (Year on Year)

- Forecast for full-year FY2021 operating income (excluding temporary factors) is ¥4.0 billion
- The operating income ratio (excluding temporary factors) is forecast to improve to 9.2%.

(Million yen)	FY2020 Full-Year Result	FY2021			YoY
		1H Result	2H Forecast	Full-Year Forecast	
Net Sales	39,195	22,267	22,233	44,500	+5,305
Operating Income	2,844	2,839	2,061	4,900	+2,056
Operating Income/Loss (Excluding temporary factors)	▲443	2,025	2,060	4,085	+4,528
Operating Income/Loss Ratio	▲1.1%	9.1%	9.3%	9.2%	+10.3%
Income before Income Tax	2,592	2,601	1,799	4,400	+1,808
Net Income	1,976	2,430	1,570	4,000	+2,024
Exchange Rate (against the U.S. dollar)	¥106.17	¥110.18	¥111.75	¥110.97	+4.80

Depreciation	3,105	1,472	1,528	3,000	▲105
Capital Investment	2,140	918	1,428	2,346	+206
R&D Expenses	1,614	737	863	1,600	▲14

*Temporary factors

FY2020: ¥4,406 million of SAW device business related revenue and ¥1,118 million in cost of structural reform

FY2021: ¥1,136 million in grant from Suzhou government and ¥321 million in cost of structural reform

Sales Forecast by Application

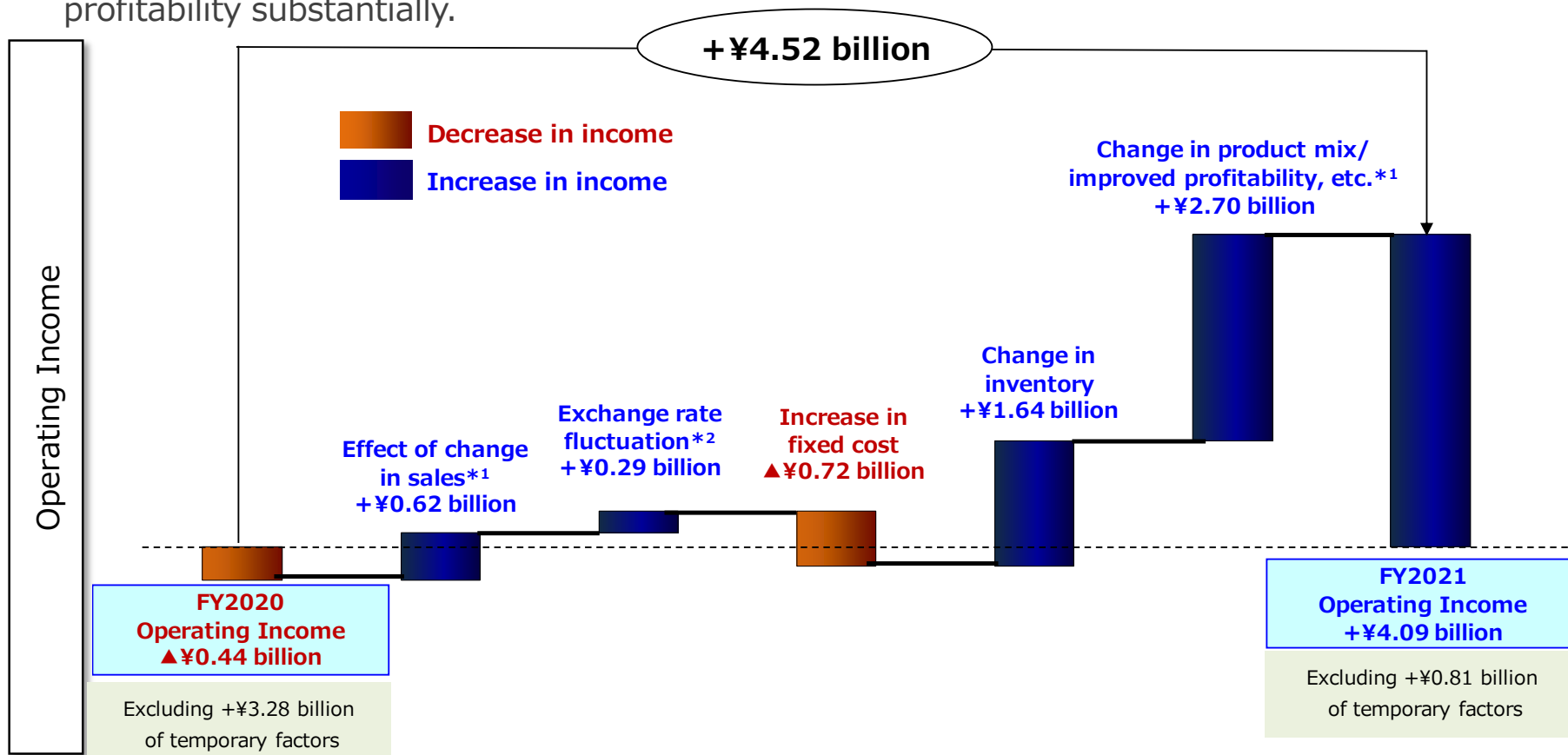
- Strong demand for automotive electronics is expected to continue in the second half, but orders could decline as customers may roll back efforts to build up inventories.

(Billion yen)	FY2020	FY2021 Forecast			Factors of Increase/Decrease
	Full Year	1H	2H	Full Year	
Automotive electronics	18.3	11.1	10.6	21.7	Strong demand is expected to continue in the second half, but orders could decline as customers may roll back efforts to build up inventories.
Industrial equipment	3.7	1.8	1.7	3.5	Sales are expected to dip slightly in the second half following the advance demand in the first half for 5G base stations in the United States and India.
Mobile communications	8.3	4.1	4.5	8.6	Sales are expected to grow in the second half as demand shifts from 38.4MHz to 76.8MHz crystal units with built-in thermistors for 5G smartphones.
IoT	1.3	0.9	0.9	1.8	The first half sales for IoT, consumer, medical equipment, and synthesizers/sensors are expected to continue in the second half.
Consumer	4.3	2.3	2.3	4.6	
Medical equipment	0.9	0.6	0.7	1.3	
Synthesizers/Sensors	0.5	0.2	0.3	0.5	
Others	1.9	1.2	1.2	2.5	
Total	39.2	22.3	22.2	44.5	

Operating Income

– Analysis of Changes in Profit from FY2020

- Contributions from improving business conditions in the automobile market and growing sales of 76.8MHz crystal units with built-in thermistors for 5G smartphones are expected to improve profitability substantially.



Net Sales ¥39.2 billion

+¥5.3 billion

¥44.5 billion

*1 : The effects of the improved unit price of mass-produced products are included in the "Change in product mix/improved profitability, etc."

*2 : Impact of approx. ±¥60 million/year for ¥1 fluctuation; FY2020 full year: ¥106.17, FY2021 full-year outlook: ¥110.97

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Priority Focus Fields: Automotive and 5G

- Our growth strategies center on the automotive and 5G domains.



- We began supplying automotive products to the market in the early 1970's.
- Over the years we have built up a market share exceeding 50%.
- We started the development of photolithographic blanks since 2008.
- We were the first to start the mass production of high-precision units required for 5G devices.

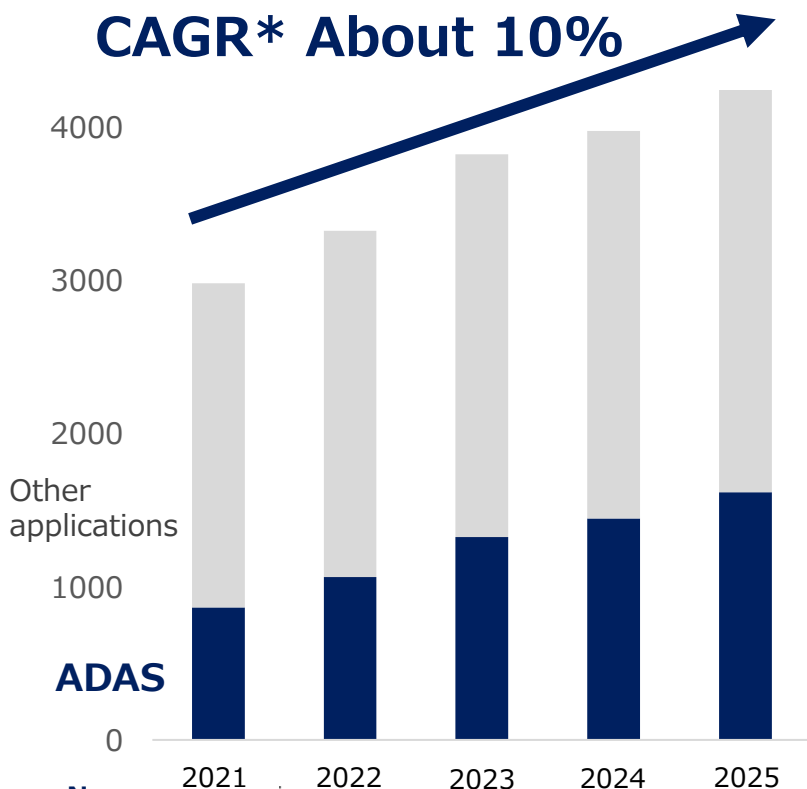
Automotive – Production Capacity Expansion

■ Forecasting strong demand for crystal devices for automobiles

Crystal Products Potential by Automotive Electronics Application

(Million units)

CAGR* About 10%



New Vehicle Sales forecast (Million vehicles)	2021	2022	2023	2024	2025
	80.7	85.3	93.7	94.0	96.3

Demand forecast for automotive electronics

- ✓ **ADAS-related demand** to drive growing demand for automotive electronics
- ✓ The number of crystal devices per vehicle to **rise by about 5% annually**



Production capacity expansion in FY2022

Expecting a **roughly 8% increase** in production capacity

Capital investment: Approximately ¥1.0 billion (plan)

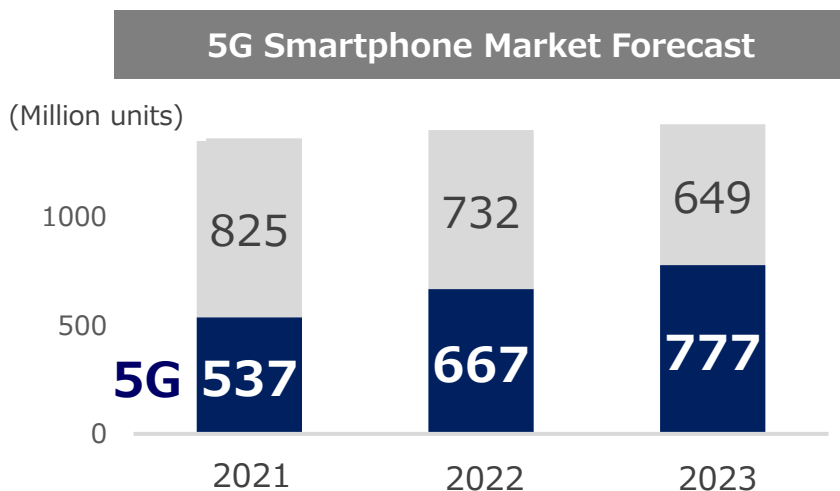
Source: NDK estimate based on research company forecast data (as of 2021)
 *CAGR: Abbreviation for Compound Annual Growth Rate

3. Management Policies Going Forward

Mobile Communications (5G Smartphones) – Production Capacity Expansion



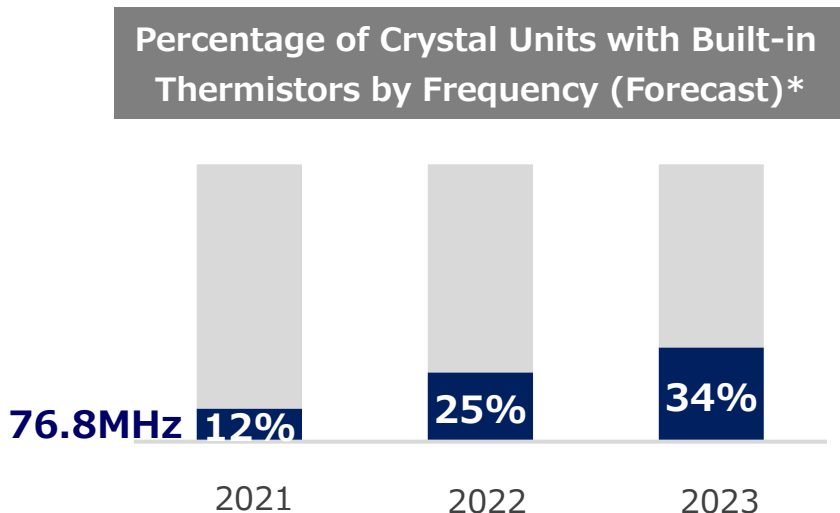
■ Forecasting rapid demand growth for 76.8MHz crystal units with built-in thermistors



Source: NDK estimate (as of 2021)

Demand forecast for 5G smartphone applications

- ✓ **Growing ratio of 76.8MHz units** in crystal units with built-in thermistors
- ✓ Major demand shift from 38.4MHz to 76.8MHz from the second half of FY2021



Production capacity expansion in FY2022

Production capacity for 76.8MHz to **increase by approximately 12%**

Capital investment: Approx. ¥0.3 billion (plan)

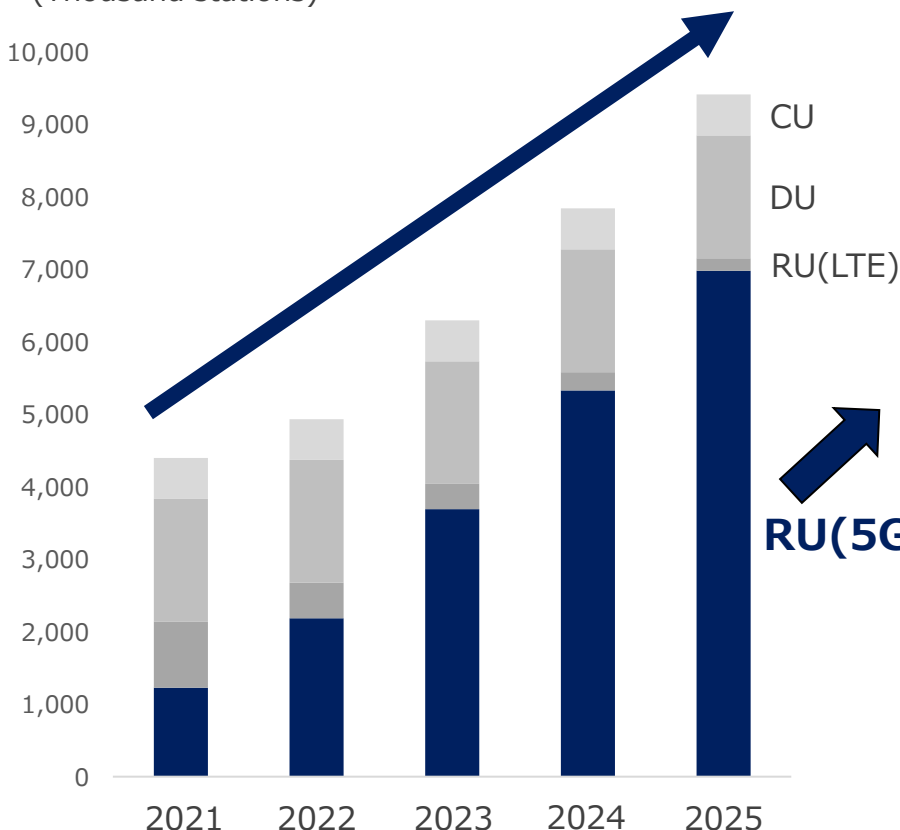
3. Management Policies Going Forward

Industrial Equipment (5G Base Stations) – Sales of Compact OCXO

- Promote sales of compact OCXOs for small base stations (RU)*, which will rapidly increase in the near future.

Base Station Market Growth Potential

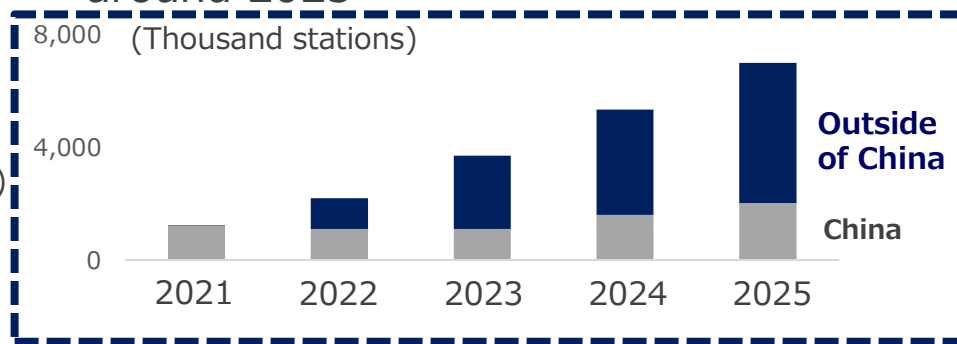
(Thousand stations)



Source: NDK estimate (as of 2021)

RU (5G) demand forecast by region

- ✓ Forecasting the increasing number of RUs in regions outside of China beginning around 2023



Sales policy

Promote sales of compact 7x5mm OCXO for RU



* 5G base stations linking terminals and networks use CUs and DUs to process data and use RU to send and receive radio signals between terminals.

Initiatives for the Post-5G Era

- Ultra-low latency, multiple simultaneous connectivity, and other functions will be enhanced at the **Post- 5G** era targeted for 6G which is expected to start from the year 2030.

Anticipating wide-ranging applications for self-driving vehicles, smart manufacturing, and industrial IoT

NDK participates in METI/NEDO*¹ consignment project*²

In February 2021, NDK, the National Institute of Information and Communications Technology (NICT), University of Tokyo, and Tohoku University commenced research and development of **time synchronization technology for the Post-5G era**.

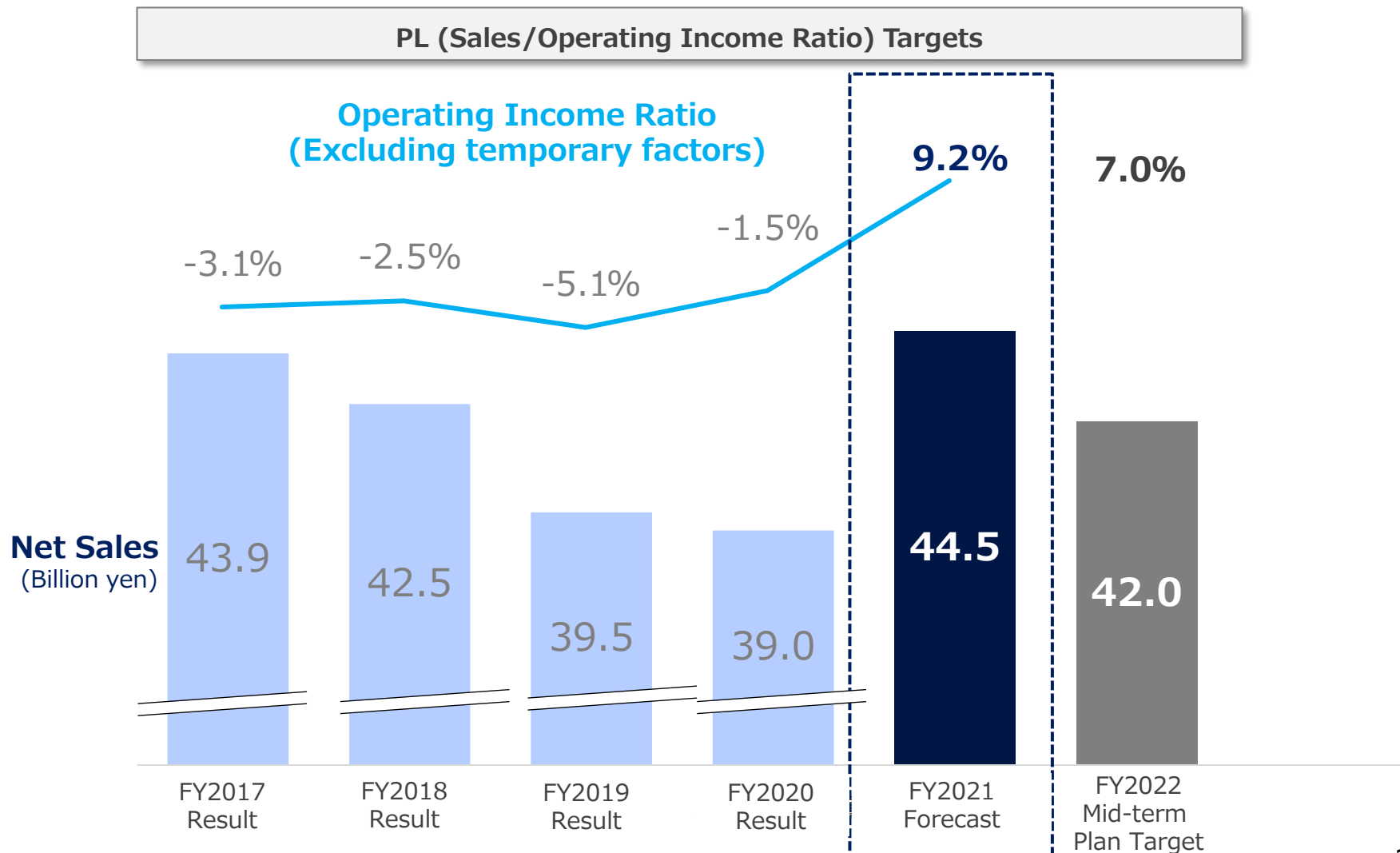
- NDK will **develop a digital-controlled crystal oscillator** this year and plans in collaboration with the NICT to **develop communication time synchronization devices** using these crystal oscillators.
- Advance **testing and verification of the devices** toward **practical application in 2026**.

*1. Abbreviation for New Energy and Industrial Technology Development Organization, a national research and development agency

*2. Consignment operation for the Research and Development / Advance Research Project for Enhancement of the Bases for Post-5G Information and Communication Systems of the Ministry of Economy, Trade, and Industry (METI) and New Energy and Industrial Technology Development Organization (NEDO)

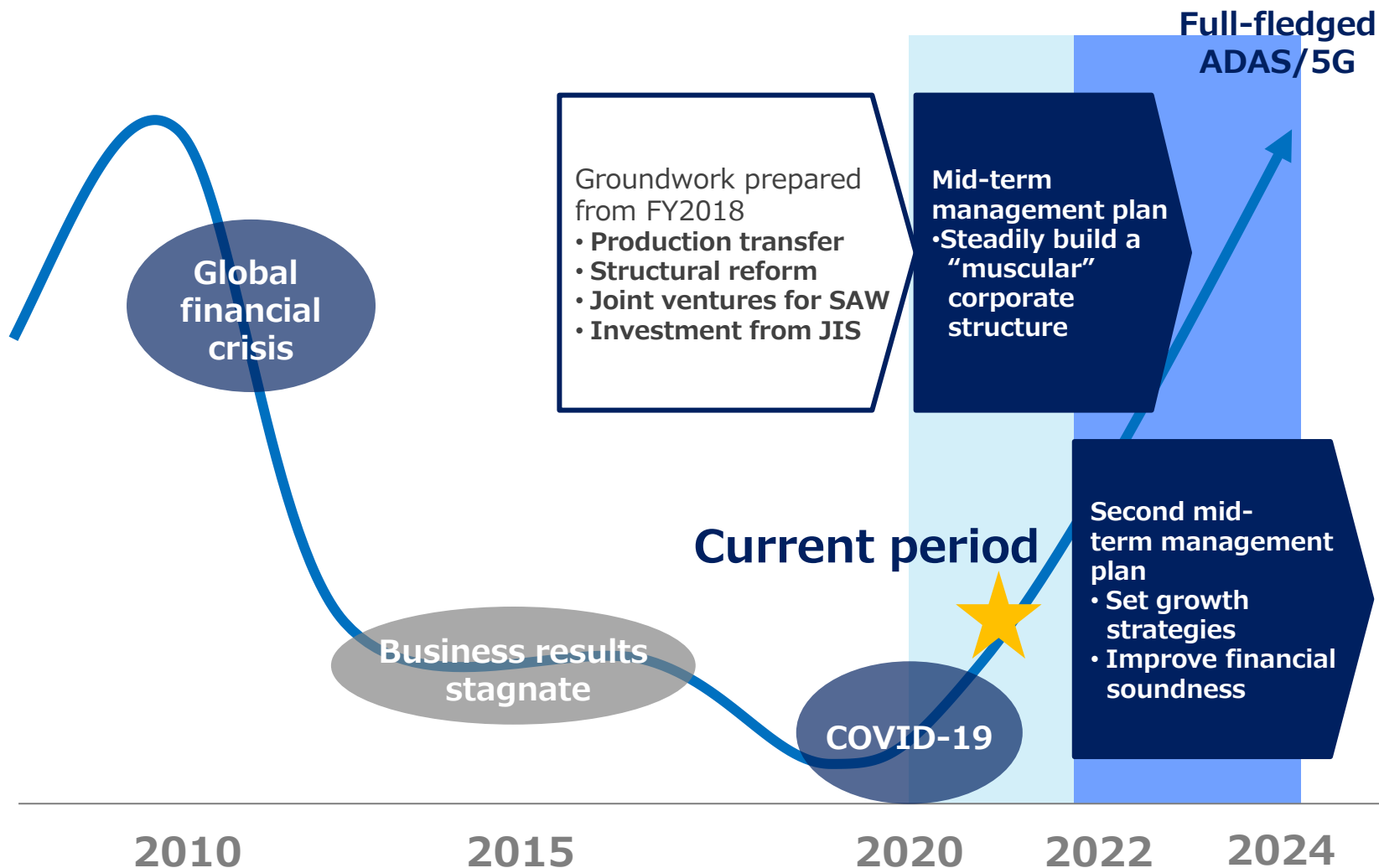
Numerical Targets for Mid-Term Management Plan (FY2022)

- Numerical targets of the mid-term management plan are expected to be achieved one year ahead of schedule.



Conclusion

- Planning to formulate the second mid-term management plan centered on growth strategies one year earlier than scheduled



Thank you everyone for your time

**For investor-related inquiries,
please contact:**

**Corporate Planning Group
Nihon Dempa Kogyo Co., Ltd.
Mail: irmaster@ndk.com**

