

Harmonic Drive Systems Inc.

Financial Results for the Fiscal Year Ended March 31, 2021

May 21, 2021

This presentation contains forward-looking statements relating to expected future performance as of May 21, 2021. Such statements are based on the views and assumptions of company management and involve risks and uncertainties such as changes in the business environment that may cause the actual results to differ materially from expectations.



Performance Summary for FY 2021/3

Consolidated results for FY 2021/3 (versus original forecasts)

(millions of yen)

	Forecast (announced Feb 8, 2021)		FY2021/3 (actual)		Vs. original forecasts	
	Amount	Percent (%)	Amount	Percent (%)	Change	Rate (%)
Net sales	37,000	100.0	37,034	100.0	34	0.1
Operating income	1,000	2.7	865	2.3	▲ 134	▲ 13.4
Ordinary income	1,100	3.0	1,366	3.7	266	24.3
Net income	500	1.4	662	1.8	162	32.5
EPS (yen)	5.19	—	6.88	—	1.69	32.5

Net income refers to net income attributable to owners of parent.

Consolidated results for FY 2021/3 (year-on-year change)

(millions of yen)

	FY2020/3		FY2021/3		Year-on-year change	
	Amount	Percent (%)	Amount	Percent (%)	Change	Rate (%)
Net sales	37,487	100.0	37,034	100.0	▲453	▲1.2
Operating income	▲195	—	865	2.3	1,061	—
Ordinary income	236	0.6	1,366	3.7	1,130	478.2
Net income	▲1,095	—	662	1.8	1,757	—
EPS (yen)	▲11.38	—	6.88	—	18.26	—
Capital investment	7,892	—	1,959	—	▲5,933	▲75.2
Depreciation costs	7,730	—	7,389	—	▲341	▲4.4
R&D costs	2,195	—	2,444	—	248	11.3

Net income refers to net income attributable to owners of parent.

Depreciation costs include depreciation cost of tangible assets and amortization cost of intangible assets and goodwill.

Performance of main group companies in FY 2021/3

(millions of yen)

	Equity stake	Net sales		Net income	
		Amount	Year-on-year change (%)	Amount	Year-on-year change (%)
Harmonic Drive Systems Inc.	—	24,264	22.6	1,868	—
HD Systems, Inc. (Harmonic Drive L.L.C.) (U.S.A)	100% (51%)	5,150	▲17.7	163	▲55.2
Harmonic AD, Inc.	100%	1,706	▲4.1	34	136.3
Harmonic Drive Systems (Shanghai) Co., Ltd.	100%	2,385	▲28.4	104	▲47.9
Harmonic Drive SE (Germany)	74.7%	9,818	▲23.0	199	▲53.6

*1 For overseas subsidiaries, the fiscal year ends December 31.

*2 Exchange rates: FY 19/12 1USD = 109.05 yen, FY 20/12 1USD = 106.82 yen

*3 Exchange rates: FY 19/12 1CNY = 15.78 yen, FY 20/12 1CNY = 15.48 yen

*4 Exchange rates: FY 19/12 1EUR = 122.07 yen, FY 20/12 1EUR = 121.81 yen

*5 Net income of US subsidiaries (consolidated) is after excluding non-controlling interests.

*6 The figures for Harmonic Drive SE are on a consolidated basis, including results of its subsidiaries; net income is before excluding non-controlling interests.

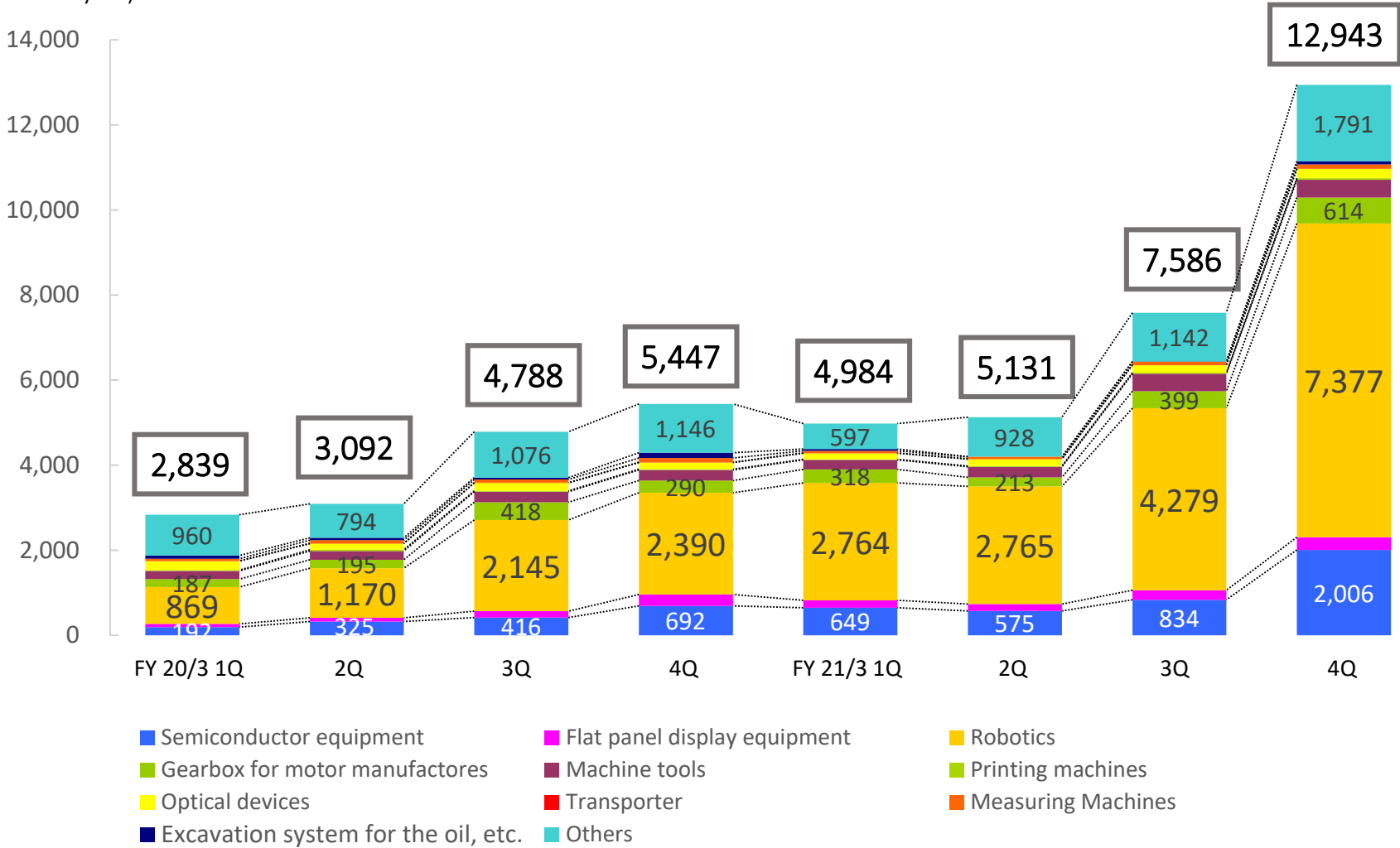
Non-consolidated results for FY 2021/3 (year-on-year change)

(millions of yen)

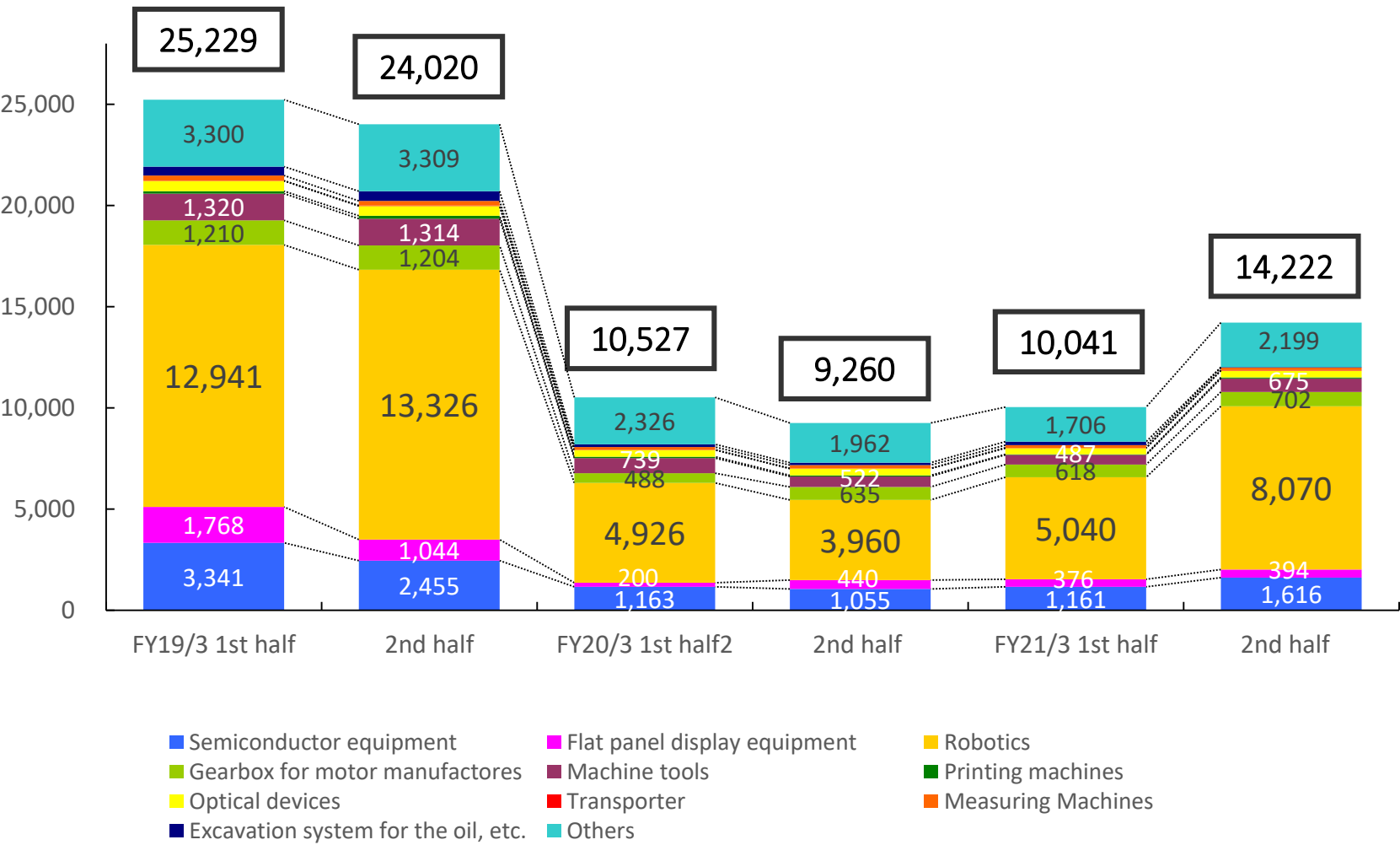
	FY2020/3		FY2021/3		Year-on-year change	
	Amount	Percent (%)	Amount	Percent (%)	Change	Rate (%)
Net sales	19,788	100.0	24,264	100.0	4,476	22.6
Operating income	380	1.9	2,573	10.6	2,193	576.8
Ordinary income	848	4.3	2,764	11.4	1,915	225.7
Net income	▲173	▲0.9	1,868	7.7	2,041	—
EPS (yen)	▲1.80	—	19.41	—	21.20	—
Capital investment	5,022	—	545	—	▲4,477	▲89.1
Depreciation costs	3,289	—	2,872	—	▲417	▲12.7
R&D costs	1,572	—	1,807	—	234	14.9

Non-consolidated bookings by application (quarterly)

(millions of yen)

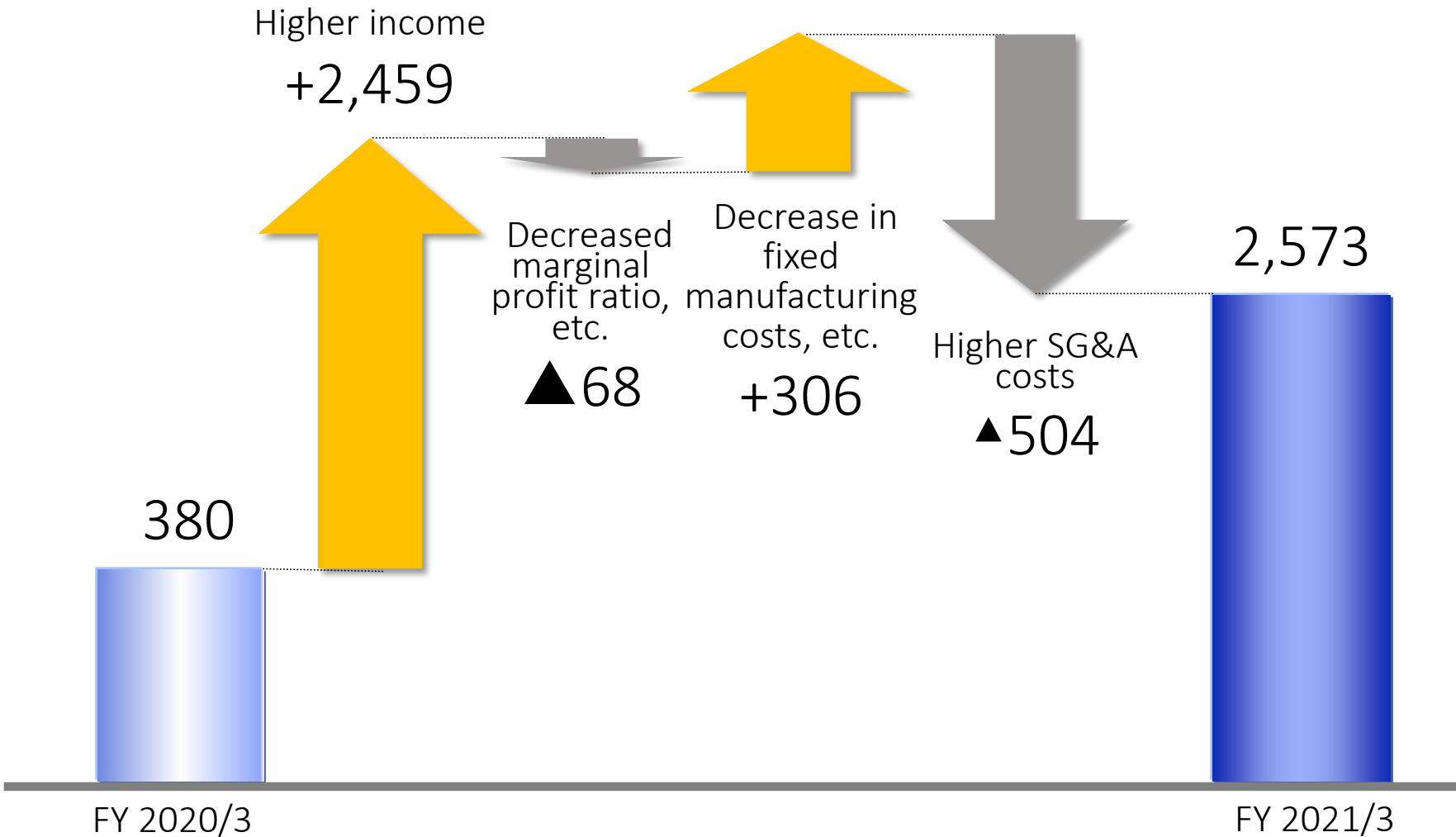


Non-consolidated net sales by application (half-yearly)

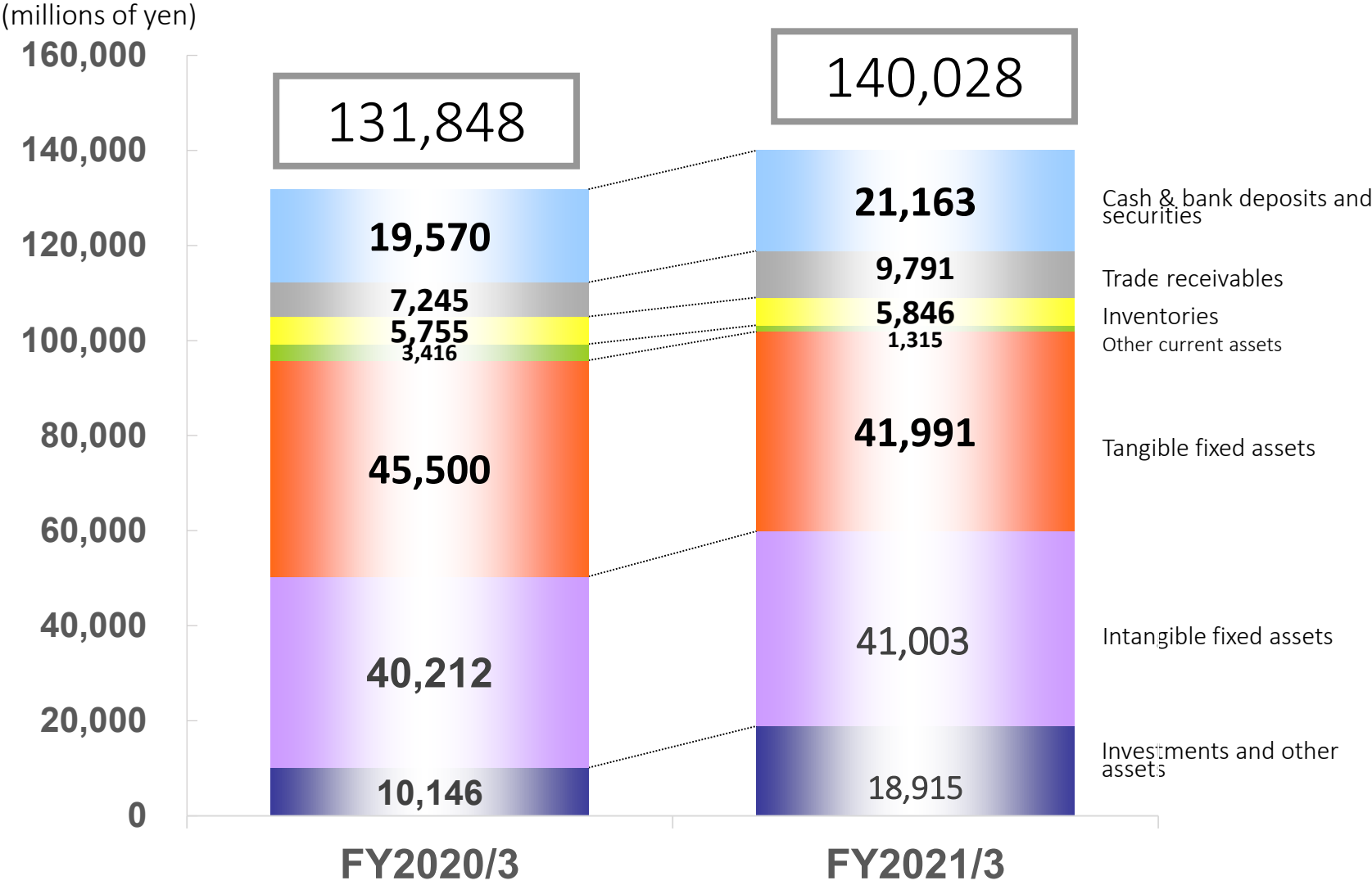


Factors in year-on-year change in non-consolidated operating income (FY 2021/3)

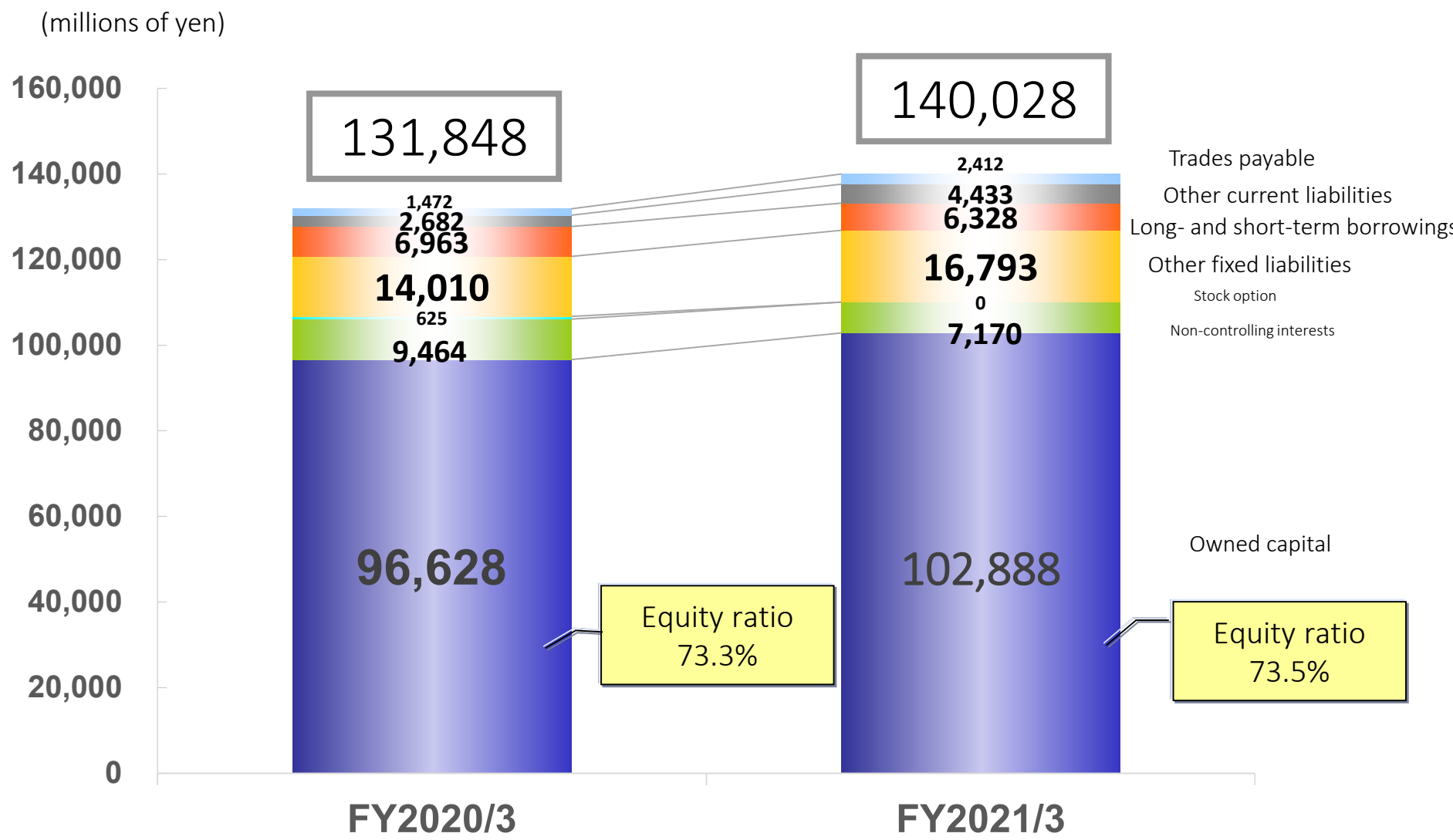
(millions of yen)



Status of consolidated assets



Status of consolidated liabilities and net assets



Status of consolidated cash flows

(millions of yen)	FY 2020/3	FY 2021/3
Cash flow from operating activities	10,950	9,555
Cash flow from investing activities	▲12,537	▲4,180
Cash flow from financing activities	2,362	▲3,611
Effect of exchange rate changes on cash and cash equivalents	▲33	▲108
Net increase (decrease) in cash and cash equivalents	742	1,654
Cash and cash equivalents at end of year	18,342	19,996



Performance Forecasts for FY 2022/3

Consolidated performance forecast for fiscal year ending March 31, 2022

(millions of yen)

	FY2021/3		FY2022/3 forecasts		Year-on-year change	
	Amount	Percent (%)	Amount	Percent (%)	Change	Rate (%)
Net sales	37,034	100	52,000	100.0	14,965	40.4
Operating income	865	2.3	6,600	12.7	5,734	662.2
Ordinary income	1,366	3.7	6,700	12.9	5,333	390.2
Net income	662	1.8	4,700	9.0	4,037	609.4
EPS (yen)	6.88	—	48.82	—	41.93	609.4
Capital investment	1,959	—	6,500	—	4,540	231.7
Depreciation costs	7,389	—	8,000	—	610	8.3
R&D costs	2,444	—	3,000	—	555	22.7

※ Assumed exchange rate for FY22/3 forecasts 1USD = ¥105.00 1EUR = ¥125.00 1CNY = ¥16.00

※Net income refers to net income attributable to owners of parent.

※Depreciation costs include depreciation cost of tangible assets and amortization cost of intangible assets and goodwill.

Forecasts of main group companies for fiscal year ending March 31, 2022

(millions of yen)

		Equity stake	Net sales		Net income	
			Amount	Year-on-year change (%)	Amount	Year-on-year change (%)
	Harmonic Drive Systems Inc.	—	38,000	56.6	5,000	167.7
※2	HD Systems, Inc. (Harmonic Drive L.L.C) (U.S.A)	100% (100%)	5,500	6.8	200	22.5
	Harmonic AD, Inc.	100%	2,100	23.0	100	190.6
※3	Harmonic Drive Systems (Shanghai) Co., Ltd.	100%	3,600	50.9	150	43.9
※4	Harmonic Drive AG (Germany)	100%	12,000	22.2	1,000	400.2

*1 For overseas subsidiaries and affiliates, the fiscal year ends December 31.

*2 Exchange rates: Jan. – Dec., 2021 1USD = 106.82 yen, Jan. – Dec., 2022 forecast 1USD = 105.00 yen

*3 Exchange rates: Jan. – Dec., 2021 1CHY = 15.48 yen, Jan. – Dec., 2022 forecast 1CYN = 16.00 yen

*4 Exchange rates: Jan. – Dec., 2021 1EUR = 121.81 yen, Jan. – Dec., 2022 forecast 1EUR = 125.00 yen

Non-Consolidated performance forecast for fiscal year ending March 31, 2022

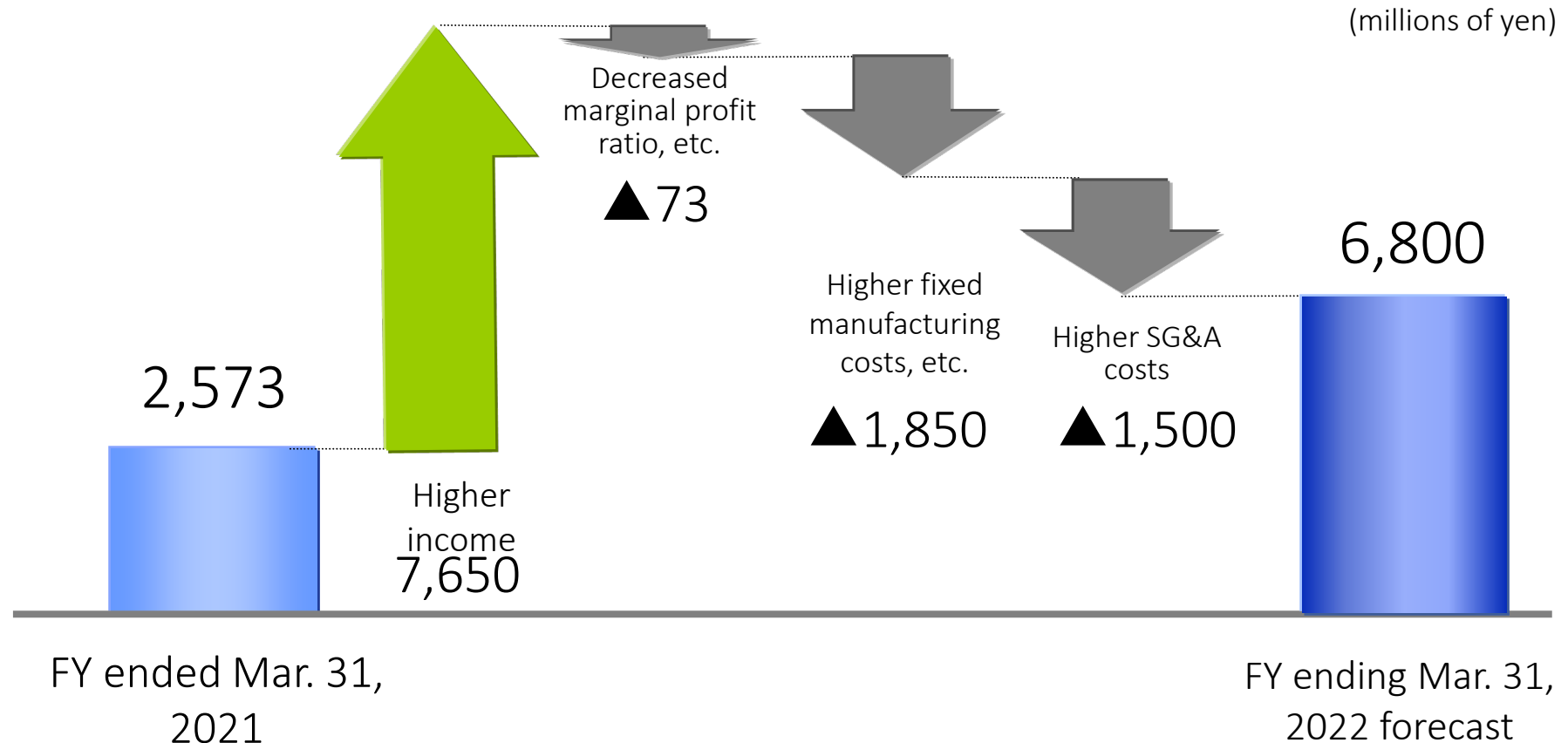
(millions of yen)

	FY2021/3		FY2022/3 forecasts		Year-on-year change	
	Amount	Percent (%)	Amount	Percent (%)	Change	Rate (%)
Net sales	24,264	100.0	38,000	100.0	13,735	56.6
Operating income	2,573	10.6	6,800	17.9	4,226	164.2
Ordinary income	2,764	11.4	6,800	17.9	4,035	146.0
Net income	1,868	7.7	5,000	13.2	3,131	167.7
EPS (yen)	19.41	—	51.94	—	32.54	167.7
Capital investment	545	—	5,700	—	5,154	944.9
Depreciation costs	2,872	—	3,300	—	427	14.9
R&D costs	1,807	—	2,300	—	492	27.2

※ Assumed exchange rate for FY22/3 forecasts 1USD = ¥105.00 1EUR = ¥125.00 1CNY = ¥16.00

※ Depreciation costs include depreciation cost of tangible assets and amortization cost of intangible assets and goodwill.

Factors in year-on-year change in non-consolidated operating income (fiscal year ending March 31, 2022 forecast)



New Mid-term Management Plan and Long-term Vision

1. Looking Back at the Previous Mid-term Management Plan (FY03/19 - FY03/21)

1-1. Medium-term management plan spanning FY03/19 to FY03/21

50th Anniversary of Founding

Seize rapidly expanding growth opportunities and advance to next stage

1

Expansion of RD, MT, and AD businesses (establishing three cores)
Buildout global monthly HD production capacity to 280,000+ units

2

Increase customer satisfaction by raising QCDS capabilities

3

Raise capabilities of group companies to strengthen all-around abilities

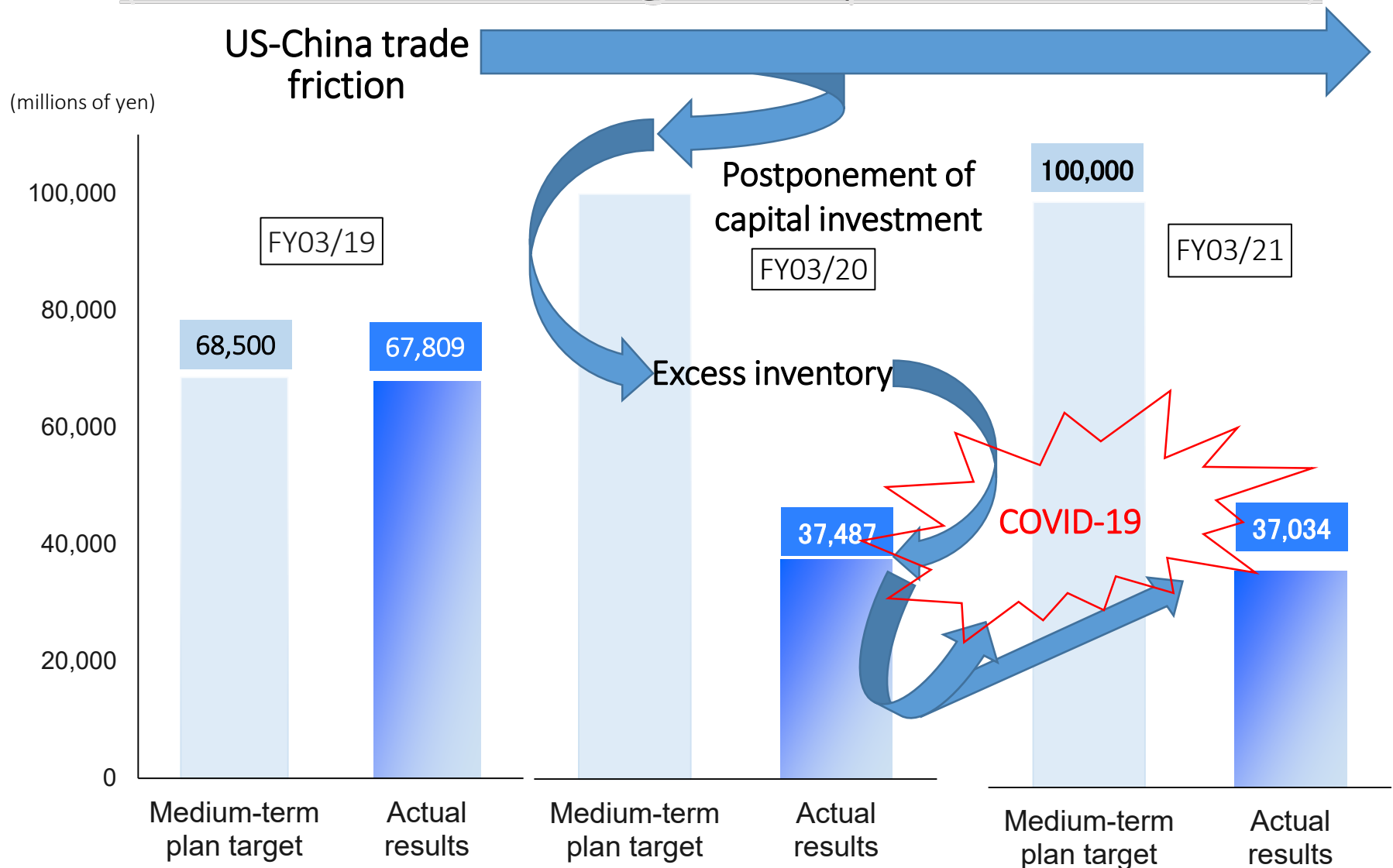
4

Strengthen management foundation (especially human resources) to support future growth

5

Staging the Growth for Years 2030 and 2050

1-2. Consolidated net sales (medium-term management plan versus results)



1-3. Revenue targets and results (consolidated)

(millions of yen)

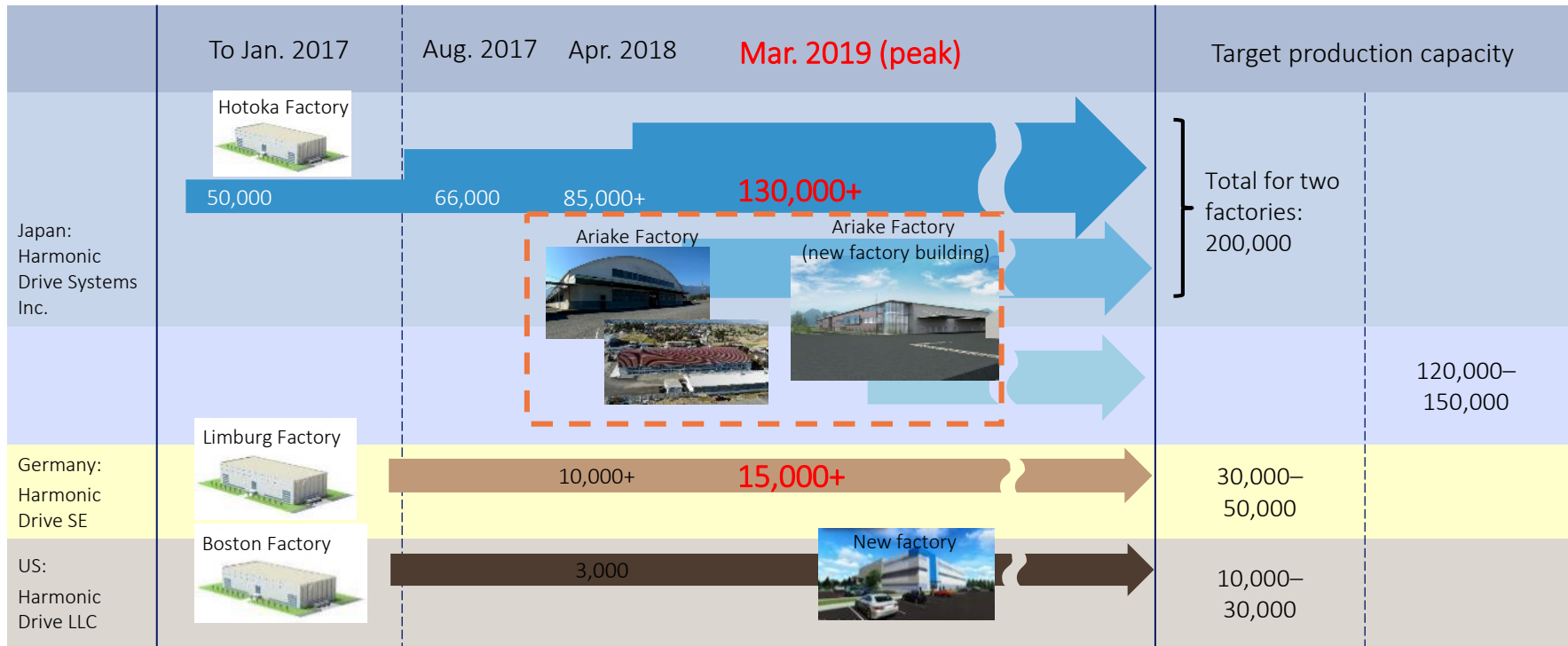
	FY03/21					
	Mid-term management plan		Actual		Vs. original plan	
	Amount	Percent (%)	Amount	Percent (%)	Increase amount	Rate of increase
Net sales	100,000	100.0	37,034	100.0	▲62,965	▲63.0
Operating income	26,000	26.0	865	2.3	▲25,134	▲96.7
Current net income	17,000	17.0	662	1.8	▲16,337	▲96.1

	Cumulative total for three years of Mid-term Plan (Planned for FY03/19 - FY03/21)	Cumulative total for three years of Mid-term Plan (Results for FY03/19 - FY03/21)
Capital investment amount	71,000	33,729
Depreciation and amortization costs	25,500	21,646
R&D costs	9,450	7,116

1-4. Factory floor expansion and Equipment capacity

1. Strain wave gearing devices

(Numbers indicate units produced per month)



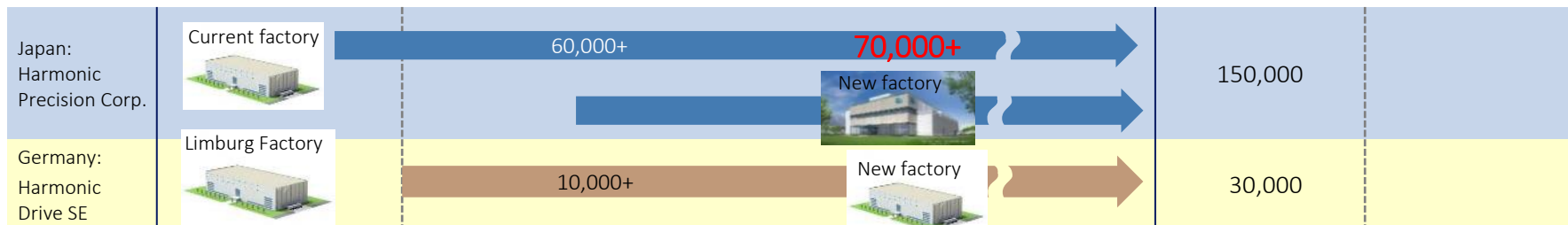
Total: 98,000+

Total: 148,000+

Total: 240,000–
280,000

120,000–
150,000

2. Crossed roller bearings



Total: 70,000+

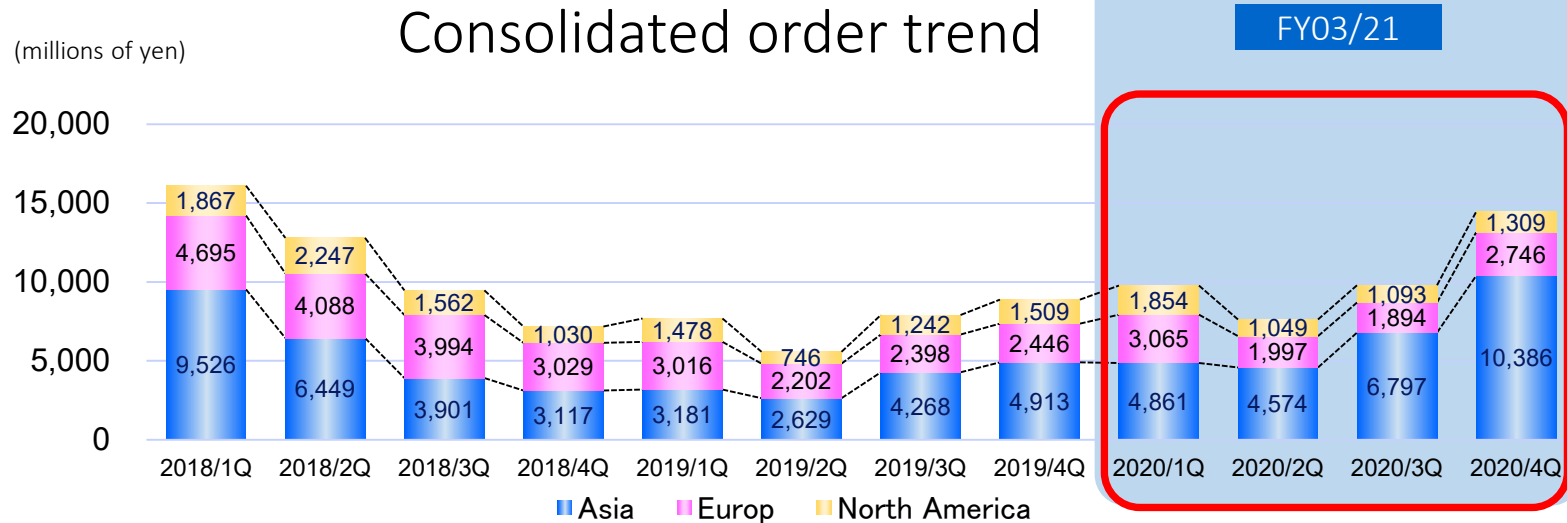
Total: 80,000+

Total: 180,000+

2. Current business environment

2-1. Our operating environment

Rising labor costs, labor shortages, and contactless demand led to a recovery in demand



Asia

Expanding demand for capital investment centered on China leading to higher orders for robots

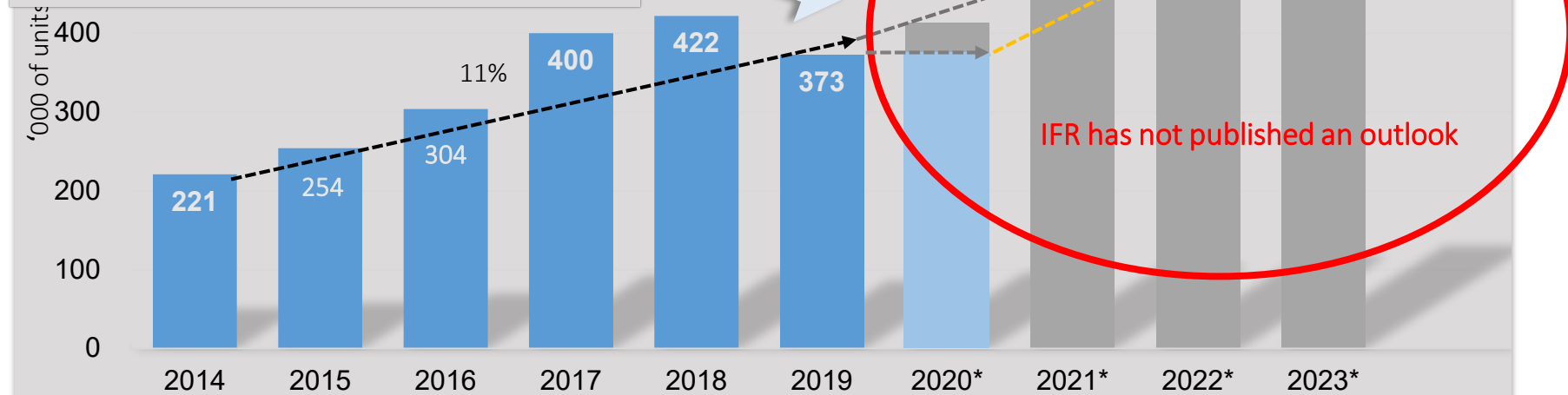
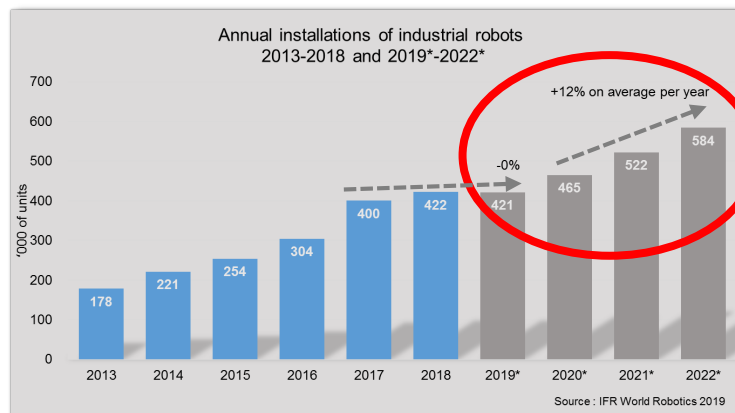
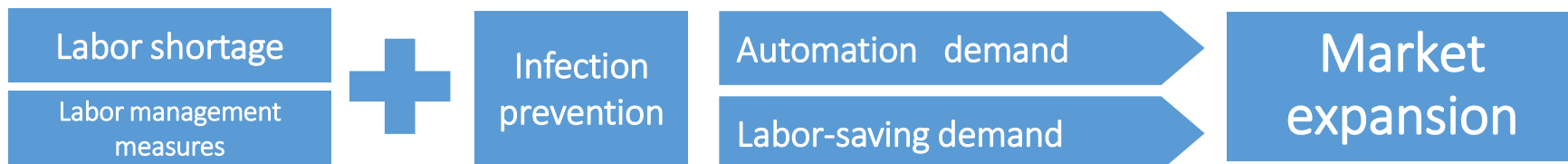
Europe

Orders for industrial robots recovering; orders for other applications also appear to have bottomed out

North America

Strong demand for semiconductor and medical applications

2-2. Factory automation robot market forecast

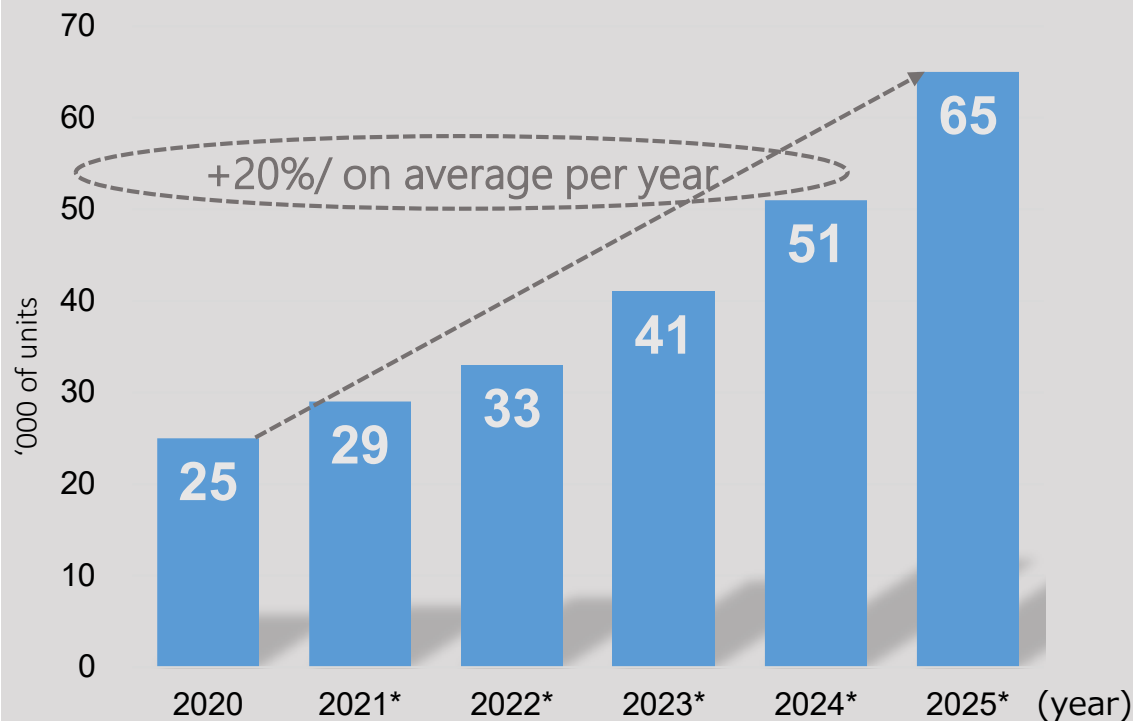


Source: compiled by the Company based on IFR World Robotics 2020

2-3. Collaborative robot market forecast

- COVID-19 response: Rising demand for collaborative robots for managing labor and avoiding the three Cs (Confined spaces, Crowded places, and Close contact)
- More companies newly entering the collaborative robot market, leading to market growth

Collaborative robot global market size



Note: Figures for 2020 are estimates, figures for 2021 and beyond are forecasts, based on the number of units shipped by manufacturers

Source: Compiled by the Company based on "Survey on the Global Market for Collaborative Robots (2020)" published by Yano Research Institute Ltd. on February 12, 2021

2-4. Future Outlook: Semiconductor manufacturing equipment and surgical robots

Semiconductor manufacturing equipment

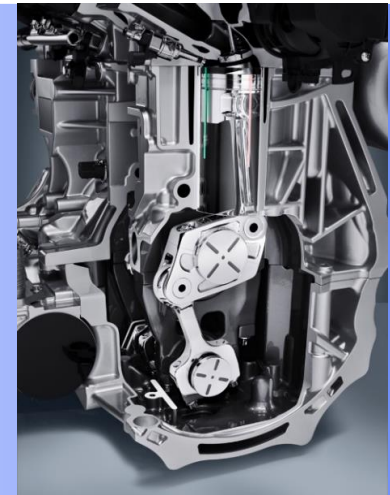
- Global shortage of semiconductors driven by the surge in data demand will lead to large investments by major semiconductor manufacturers
- Foundries set to accelerate investment in cutting edge technologies
- Domestic semiconductor production will accelerate in China. Production capacity expansion will lead to higher sales of semiconductor manufacturing equipment.



Automotive: Used in variable compression ratio (VCR) engines

- Achieved improvements in ease of installation, fuel economy, and quietness at high speeds
- This will become the center of Nissan's next-generation engines
- Internal combustion engine, e-POWER

Going into expansion phase

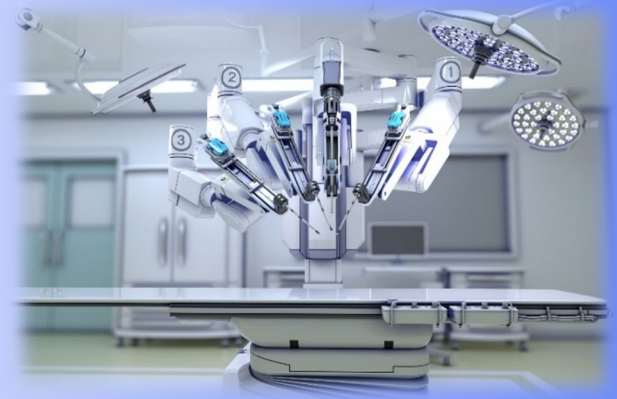


Courtesy of Nissan Motor Co., Ltd.

2-5. Focus applications: surgical robots, eVTOL

Surgical robots

- Wide variety of robots under development globally
- The Company and group companies involved from the development stage
- Showcases our product strengths (compactness & ultra-precision) in this market
- Market set to grow with widespread adoption of remote surgery in conjunction with 5G expansion; expectations as future growth driver for the Company



eVTOL (Electric Vertical Takeoff and Landing vehicle)

- Expected to grow rapidly over the next 10 years
- Our compact and lightweight products will contribute to the electrification of aircraft
- Achieve an eco-friendly society with substantially reduced noise and CO2 emissions



2-6. Focus applications: Space

Mars rover

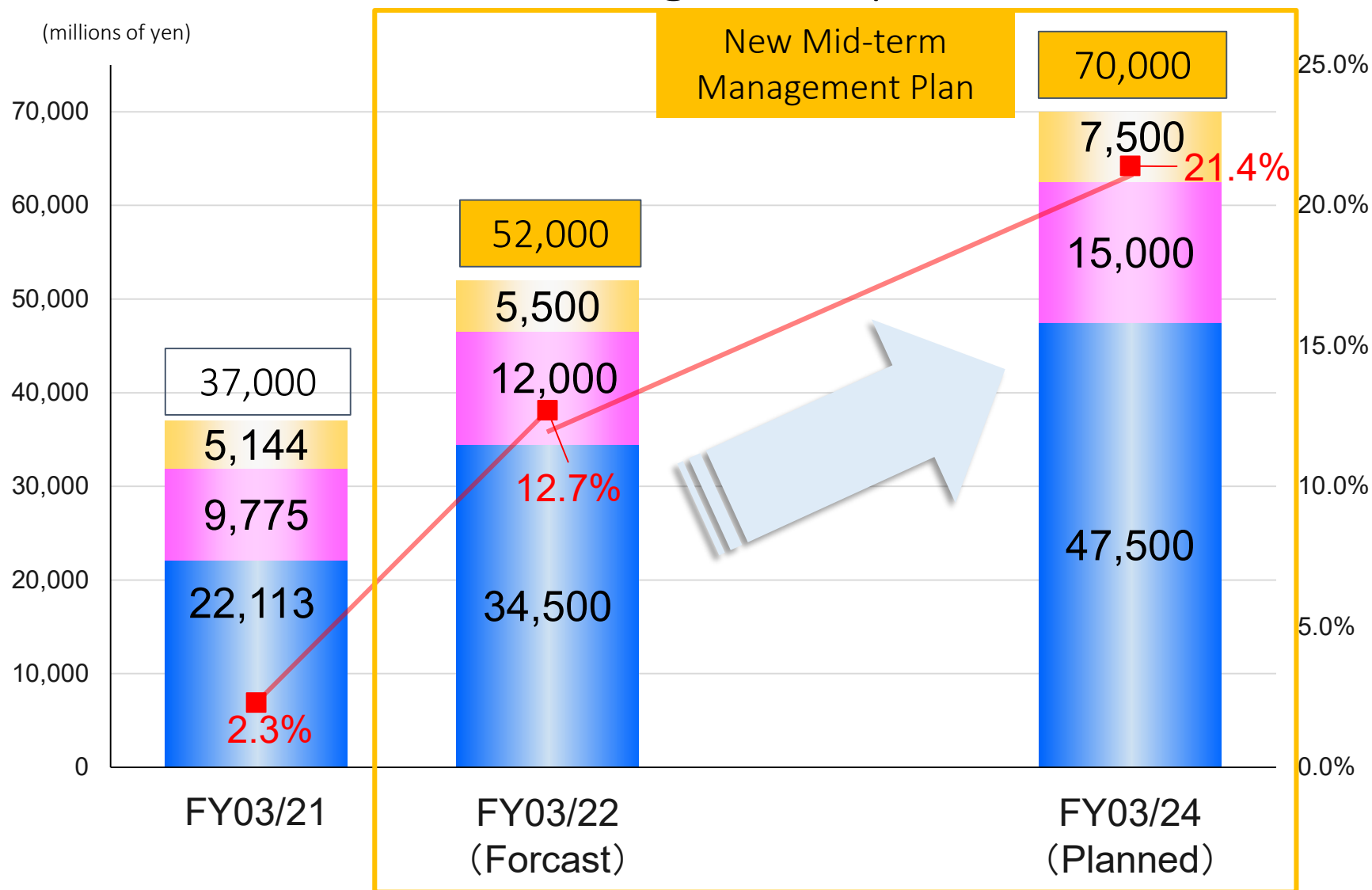
Perseverance Rover

The rover that landed on Mars in February 2021 uses five HarmonicDrive® units



3. Mid-term financial targets (FY03/22 - FY03/24)

3-1. Consolidated sales and operating income margin of new mid-term management plan



3-2. Revenue targets (consolidated)

(millions of yen)

	FY03/21 (actual)		FY03/22 (forecast)		FY03/24 (planned)	
	Amount	Percent (%)	Amount	Percent (%)	Amount	Percent (%)
Net sales	37,034	100.0	52,000	100.0	70,000	100.0
Operating income	865	2.3	6,600	12.7	15,000	21.4
Current net income	662	1.8	4,700	9.0	10,500	15.0

	Cumulative total for three years of previous Mid-term Plan (Results for FY03/19 – FY03/21)	Cumulative total for three years of new Mid-term Plan (Planned for FY03/22 - FY03/24)
Capital investment amount	33,729	15,000
Depreciation and amortization costs	21,646	25,000
R&D costs	7,116	9,000

3-3. FY03/22-FY03/24 Management targets

		FY03/21
Growth	Sales growth	¥37.0bn
Profitability	Operating margin	2.3%
Efficiency	ROE	0.7%
Stability	Equity ratio	73.5%
Shareholder returns	Dividend payout ratio	¥10/share
Capital investment	Capital investment (3-year total)	¥33.7bn
Technology development	Development budget (3-year total)	¥7.1bn



FY03/24 Management Targets	
¥70.0bn 24% CAGR	Tie market expansion with our growth
20+%	Improve profitability by providing valuable products
10+%	ROE > Cost of equity
70+%	Build a financial base that balances growth and stability
30+%	Maintain stable dividends
¥15.0bn	Layout capital investments to support our growth
¥9.0bn	Create new technologies and expertise

4. Basic Policies of New Mid-term Management Plan (FY03/22 – FY03/24)

4-1. Basic Policies

-Toward the Next 50 Years: Moving to a Solid Growth Stage-

1

Achieve QCDS that meets customer expectations

2

Expand RD, AD, and MT businesses by developing valuable products and enhancing services

3

Build a business foundation that meets the demands of the times

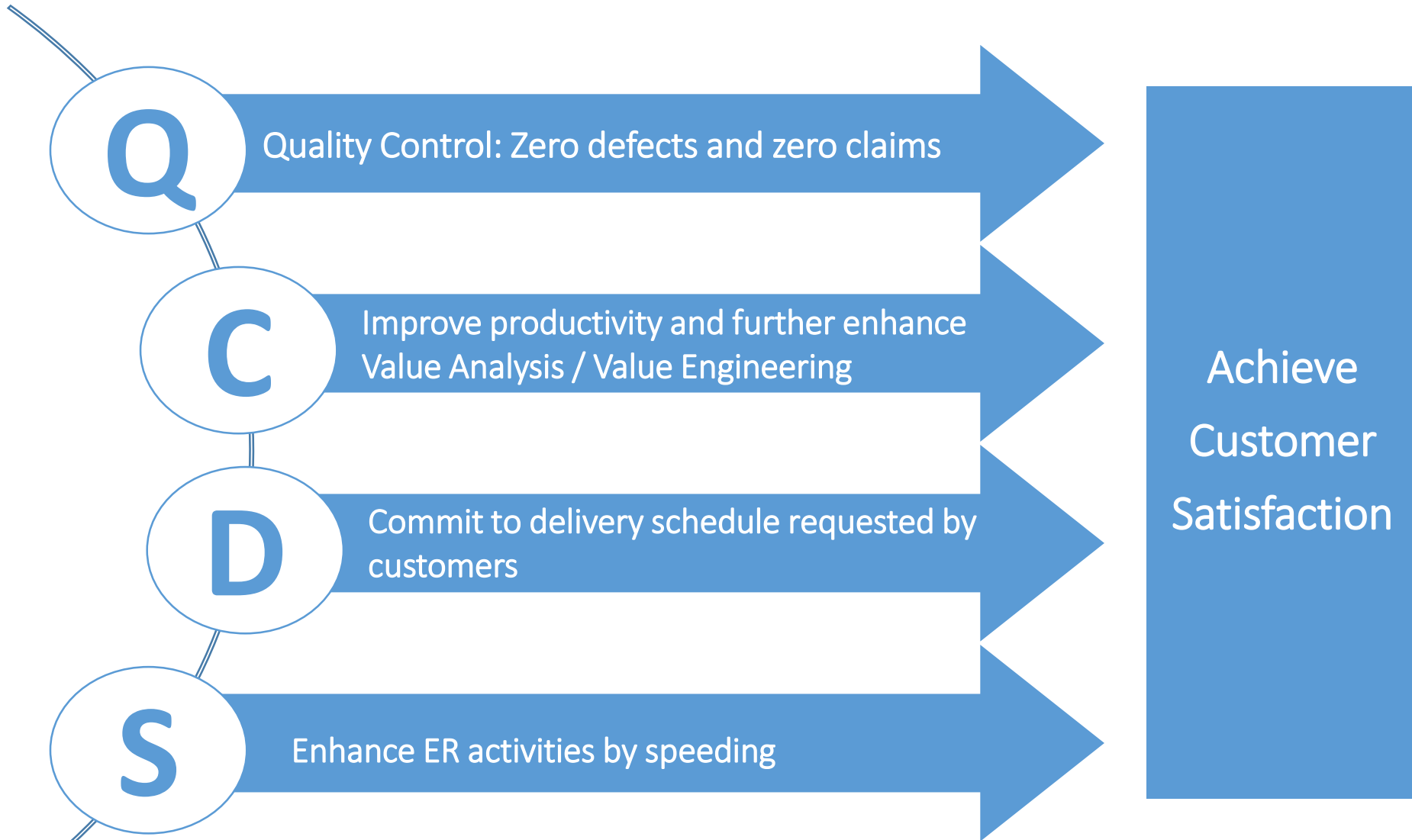
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Strengthen coordination and maximize synergies with overseas group companies and institutions

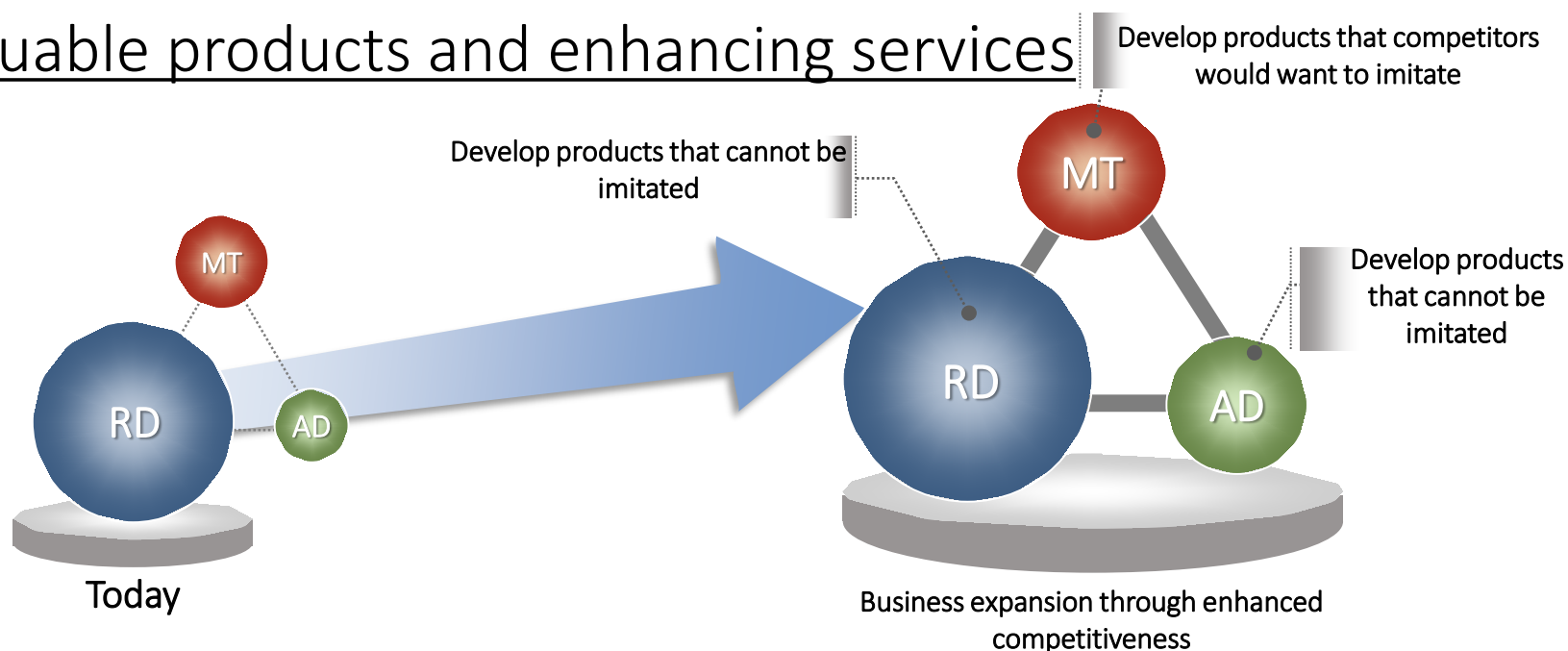
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Create new standards that define the next 50 years through outside-the-box thinking

1. Achieve QCDS that meets customer expectations



2. Expand RD, AD, and MT businesses by developing valuable products and enhancing services



RD:HarmonicDrive®

- Create and commercialize new technologies and skills to support next-generation applications

AD:AccuDrive®, HarmonicPlanetary®

- Expand product offerings tailored to regions and various applications through business restructuring

MT:Mechatronics

- Provide products that enable customers to bring their vision to life and further improve problem-solving capabilities

Basic Policy 3. Build a business foundation that meets the demands of the times

- Promote sustainable management (SDGs)
- Develop human resources capable of leading business expansion, and establish personnel systems and work styles that enhance diversity
- Execute IT enhancement strategy and implement our own IoT concept
- Establish a financial base to support growth and strengthen fundraising capabilities

Basic Policy 4. Strengthen coordination and maximize synergies with overseas group companies and institutions

- Maximize utilization of management resources at each site
- Maintain and promote proactive research activities with overseas research institutions
- Establish a global production system

Basic Policy 5. Create new standards that define the next 50 years through

outside-the-box thinking

- Proactively take on the challenge of discovering new materials, new principles, new mechanisms, and new production methods
- Make strategic moves toward developing intelligent mechatronics
- Foster a culture that is sensitive to changes in society and accepts variant perspectives

Social demands

- Heightened environmental awareness
- Automation and labor saving
- Creation of new value

Boost our corporate value

- Contribute to the environment
- Achieve industrial growth and a prosperous society
- Enhance our corporate value

Strength of our products: compact, lightweight, precise

Our Challenge

Near net shape*

New materials, new production methods

New principles, new mechanisms (Abacus, etc)

Intelligent mechatronics

■ Reduce materials

■ Reduce energy consumption

■ Improve energy efficiency

■ Contribute to technological innovation

5. Mission and Long-term vision

5-1. Additional initiatives centered on our management philosophy

《Management Principles》

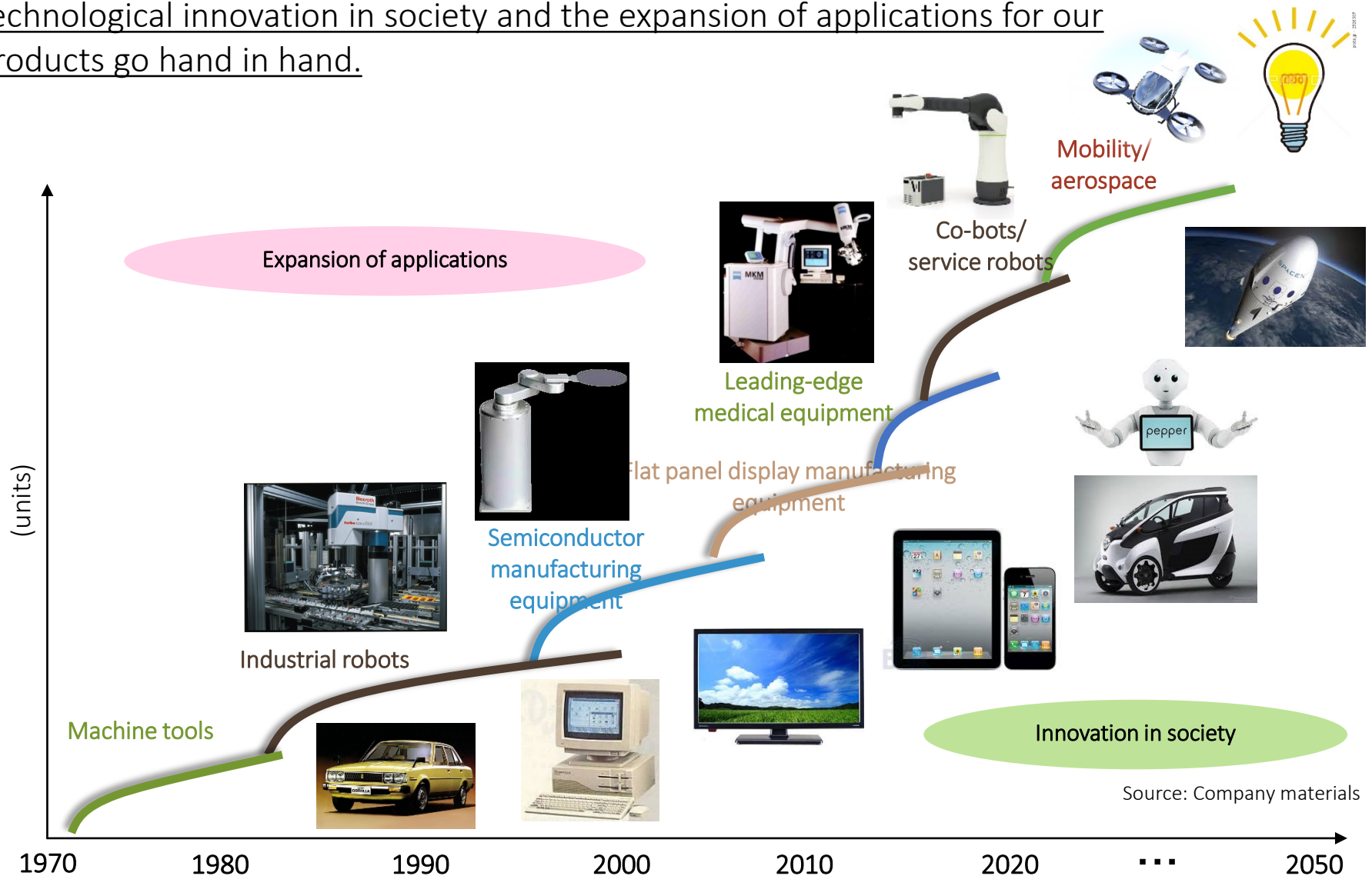
1. Respect for the Individual
2. A Meaningful Company
3. Coexistence and Co-prosperity
4. Contribution to Society

- Our management philosophy remains unchanged
- Reflect in our basic policies
- Contribute to achieving a sustainable society

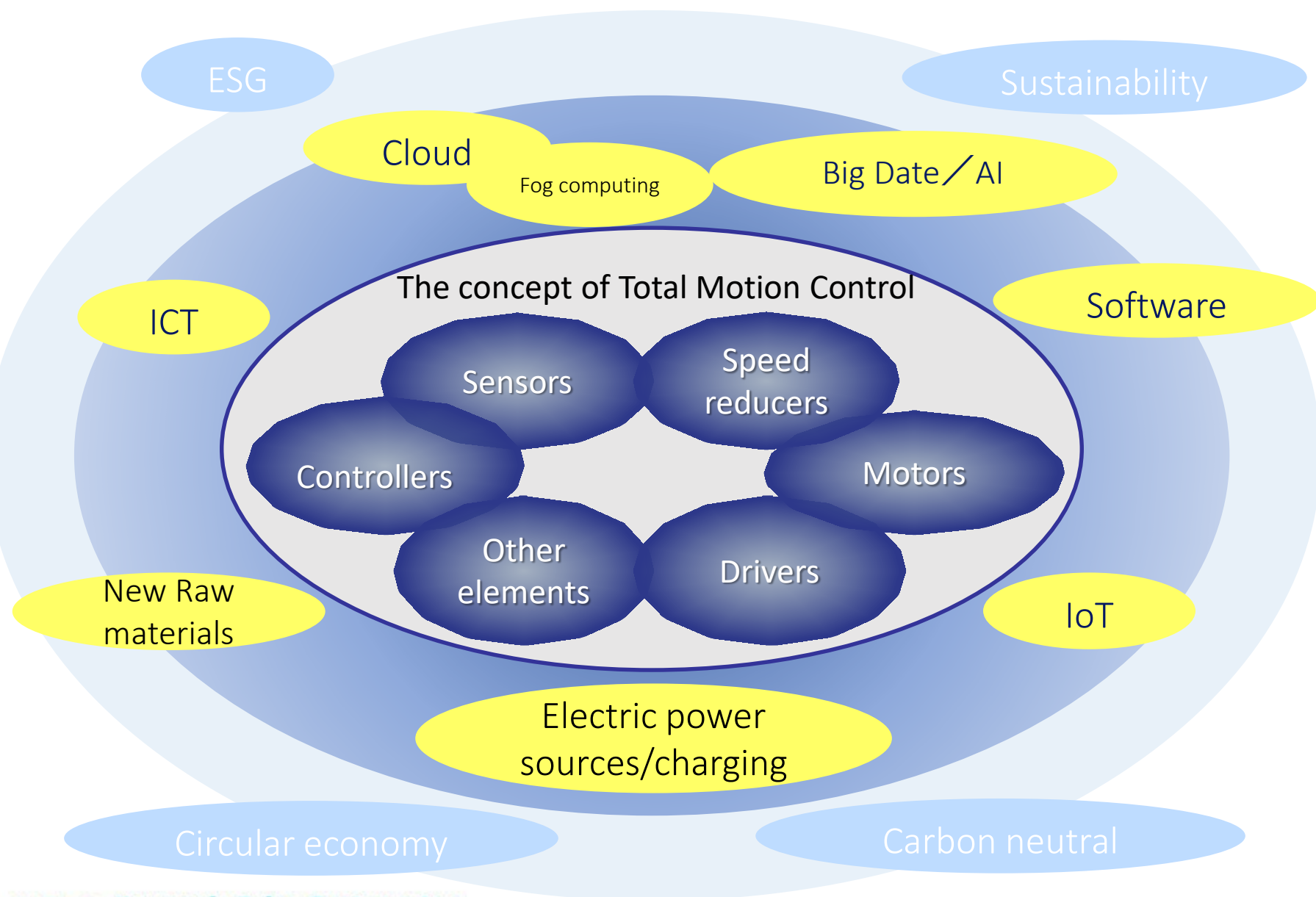
The foundation of our SDG initiatives

5-2. Expansion of applications and our growth

Technological innovation in society and the expansion of applications for our products go hand in hand.



5-3. Our business domain and changes in the surrounding industry



5-4. Mission and Long-term vision

Mission

Contributing to the Innovation in our Industry and Society with our Motion Control Technology

Long-term vision

-In pursuit of total motion control-

Take on the challenge of developing new technologies and skills that capture changes in the environment

Achieve QCDS that goes beyond customer expectations

Contribute to creating a sustainable society through corporate activities

Management Principles

Respect for the Individual

A Meaningful Company

Coexistence and Co-prosperity

Contribution to Society



Harmonic Drive Systems Inc.

株式会社 ハーモニック・ドライブ・システムズ

