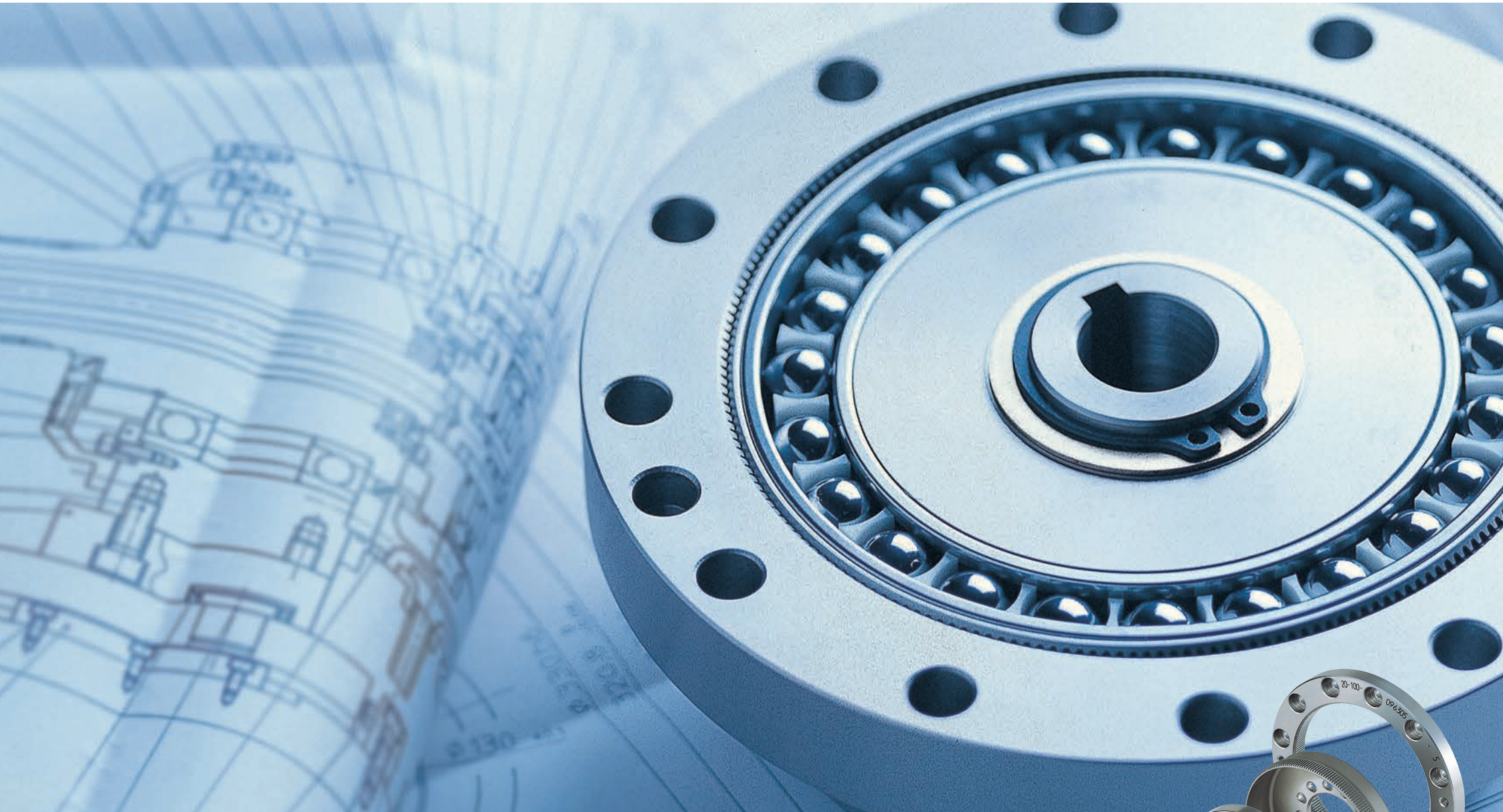
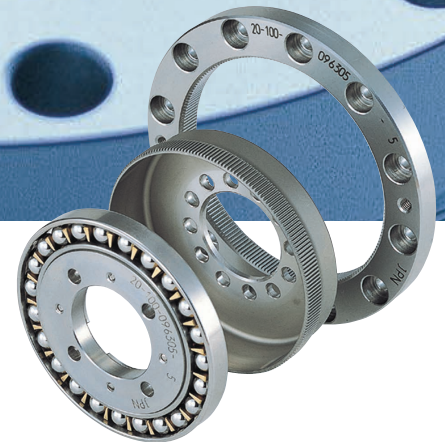




Integrated Report
HDS REPORT 2025



Management Philosophy and Aspirations

Mission

To contribute to innovation
in the society by
our motion control technology

Long-term Vision

The best provider of
total motion control
in harmony with the future

Provision of total motion control



Pursuit of superior actuators

Unchanging goals that we want to achieve through corporate activities

Management Philosophy

Respect for the Individual

HDSI aspires to be a company where the rights of every individual employee are respected, and where individuals can pursue a meaningful, cultural, and worthwhile life.

We will make HDSI a company that believes in each employee's aspirations, supports independent activities, and creates an environment where employees can maximize their abilities through work, and where abilities and performance are rewarded.

A Meaningful Company

HDSI wants to be recognized as a meaningful, superior company which manifests creativity, has personality and distinctive characteristics, and whose management foundation is based on ceaseless research and development activities and a constant emphasis on quality—a company where the entire organization finds meaning in making utmost efforts.

Coexistence and Co-prosperity

HDSI is supported by many different parties including our employees, customers, shareholders, materials and parts suppliers, affiliated companies, and trading partners.

We make our best efforts to create attractive products, services, compensation, working environments, and trading relations to satisfy all these concerned parties.

Contribution to Society

HDSI broadly contributes to society and industry through our corporate activities as a good corporate citizen.

The products and services we provide directly and indirectly contribute to the betterment of society. We aspire to be a company that helps improve the environment and the quality of the communities where we are located.

The world of Motion Control Transformed by a Single Invention

The innovative idea and the unique principle of HarmonicDrive® are the brainchild of a brilliant American inventor, C. W. Musser. Making use of the deflection of metal, Musser's invention defied the conventional wisdom and instantly became the object of worldwide interest at the time as a revolutionary method of conveying motive power. Two companies stepped forward to take a chance at commercializing this concept. One was USM (United Shoe Machinery Corporation) in the U.S., and Hasegawa Gear Works, Ltd., the forerunner of Harmonic Drive Systems Inc. Subsequently, HarmonicDrive® was successfully commercialized for the first time in Japan. Currently, the technology fulfills the needs of various domains that require positioning accuracy.

The management philosophy of Harmonic Drive Systems demonstrate our values and reflect various aspirations behind the realization of Total Motion Control.



Building the future of industry

through the pursuit of total motion control

—— Harmonic Drive Systems

The background of the slide is a composite image. On the left, a futuristic cityscape with tall glass skyscrapers is visible. A sleek, silver flying car with a transparent cockpit is shown in flight. On the right, a close-up of a humanoid robot's head is shown, featuring a white, glossy helmet with a large, dark visor and a single circular light on the side. The robot's neck is exposed, showing a complex network of wires and mechanical components. A large, white, stylized gear icon is positioned on the far left, partially overlapping the cityscape.

Space exploration, eVTOL (flying cars), and humanoid robots—visions long imagined by humankind are now becoming reality. Centered on our HarmonicDrive® strain-wave gearing technology, the HDS Group is pursuing Total Motion Control and continually creating new value for society by pioneering the future of industries yet to emerge.

Greetings from Our Leadership

We will confidently forge ahead with our stakeholders in our quest to become the
“best provider of total motion control in harmony with the future.”

Chairperson
of Board
of Directors

Akira Nagai

President and
CEO

Akira Maruyama

Greetings from Our Leadership

We thank you for taking a look at Harmonic Drive Systems (HDS) Report 2025. Guided by our corporate mission, “to contribute to innovation in the society by our motion control technology”, the HDS Group is advancing efforts to realize the 2030 Vision, “The best provider of total motion control in harmony with the future.”

Ever since the establishment of the Company, we have continually honed our core technology of HarmonicDrive®. This management philosophy and our proprietary technology not only give us strength but also carry the risk of being reduced to a “monoculture” if we underestimate environmental change. To avoid such a risk, we must remain curious about and pay attention to the changes around us and keep pace with the speed of change. With our management principles of “Respect for the Individual,” “A Meaningful company,” “Coexistence and Co-prosperity,” and “Contribution to Society” serving as the foundation for growth, we will continue to enhance corporate value.

Engaging with Employees

We maintain a deep commitment to our employees. Our goal is to create workplaces where employees feel proud to have joined this Company and experience a sense of personal growth. All the more because we are living through an age of rapid change, we provide a work environment where employees can confidently take on challenges while fostering a corporate culture that champions the courage to step into new territory without fear of failure. Living up to the slogan of the Medium-Term Management Plan, “Unleash the brain power of individuals,” we continue to upgrade systems that assist each and every employee in honing their individual value and that ensure endeavors are recognized by society. We firmly believe that our employees find both job satisfaction and meaning in creating new value in response to ever-changing customer needs.

Engaging with Shareholders and Investors

To enhance corporate value, we must maintain a constructive dialog and build a relationship of trust with shareholders and investors. We have long adhered to a policy of equally dividing profits among employees, shareholders, and growth investment. The HDS Group’s technology profile offers an advantage in cutting-edge fields, such as industrial robots, semiconductor manufacturing equipment, medical equipment, and aerospace. More recently, we have been expected to play a key role in the physical AI field, including AI robots. Although the number of AI robot players continues to increase worldwide, uncertainty remains in the fulfillment of plans and readiness for mass production. As such, the HDS Group intends to respond to major shifts in society both flexibly and steadily as we carefully determine the feasibility and risks of plans. We will also continue to strengthen our corporate governance to improve the Company’s credibility. As stakeholders’ expectations grow, we believe that striking the right balance between soundness and transparency in management will lay the foundation for sustainable growth.

We will continue to cherish the relationship of trust with all stakeholder groups, including shareholders and investors, so that we can forge ahead confidently into the future. We would greatly appreciate your continued support.

Engaging with Customers

Regarding our relationship with customers, we believe that it is more important to be prepared to promptly respond to their consultations on technical challenges from the planning stage onward as they explore new applications and markets, rather than to suggest new markets to them. “Meeting customer expectations” is what defines our “quality,” and we aim to become the first partner they call. Simultaneously, we will increase our focus on the development of products that help customers reduce their environmental impact by supplying lighter and more energy-efficient products. We will contribute to a sustainable society by offering high-quality, long-life, and highly efficient products.

Engaging with Suppliers

We have been fortunate to build a solid relationship with our suppliers, refining advanced processing techniques together. Our procurement section provides suppliers with technological and production support through “development purchasing” while assisting them with business continuity and succession planning. From the perspective of the business continuity plan, we are also working to optimize our supply structure both at home and abroad.

Engaging with Communities and Future Generations

We have pursued coexistence with local communities by designing factories that consider the landscape and global environment, hiring new graduates from local high schools, and organizing community events and cleanup activities. We do not merely create jobs; we are delighted that some even say they choose to live in this neighborhood because they want to join our company. We will continue to build a sustainable relationship embedded within our host communities. We consider our products “future necessities.” Robotics and motion control are essential technologies that will underpin future industry and society. We have no doubts whatsoever about the expansive roles our Group’s technologies are expected to play and the considerable potential they offer.

Contents / Editorial Policy / Information Disclosure

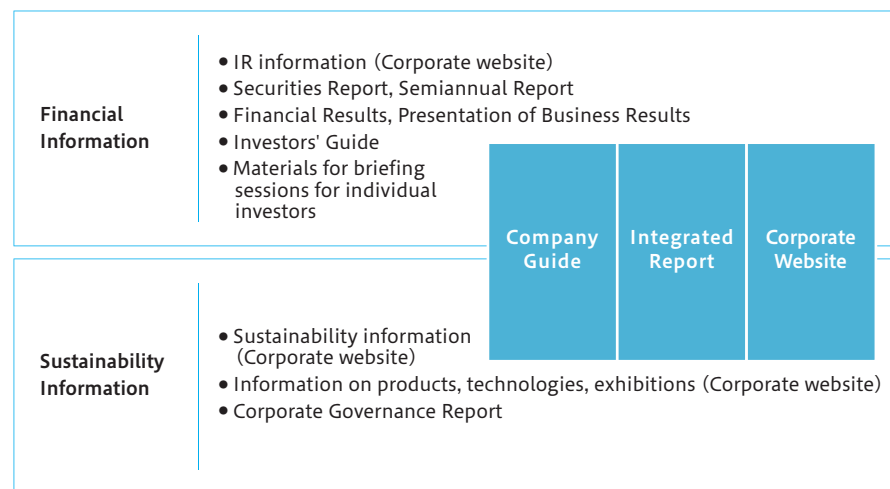
About HDS REPORT 2025



Publication officer
Executive Officer **Makiko Ono**

This year's report marks the third edition of HDS REPORT, the Harmonic Drive Systems (HDS) Group's integrated report, first published in 2023. As the executive officer responsible for its publication, I am committed not only to ensuring the accuracy of the information presented but also to enhancing the consistency between the Group's management strategy and materiality, with the aim of driving financial impact. We will continue to use this report as a tool for dialogue with our stakeholders, including investors, and work to further increase corporate value by reflecting their perspectives and expectations into our management practices.

Information Disclosure System



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Editorial Policy

This HDS REPORT 2025 aims to deepen the understanding of wide-ranging stakeholders, including shareholders and investors, by explaining the medium- to long-term economic value generated by the HDS Group, as well as the HDS Group's Management Philosophy, long-term vision, business models, capital and strengths forming the source of its competitive edge, growth strategy, sustainability initiatives, etc., to improve social and environmental values. In compiling this report, we referred to IFRS Foundation's International <IR> Framework, the Ministry of Economy, Trade and Industry's "Guidance for Collaborative Value Creation," and other relevant guidelines.

Scope of reporting

Entities reported: Harmonic Drive Systems and its Group companies included in the scope of consolidation and those accounted for by the equity method.

Period reported: This report covers mainly fiscal 2024 (from April 1, 2024, to March 31, 2025). Notes, etc., are inserted where any other period is mentioned.

Terms used to refer to the Company and its Group: In this report, "HDSI" or the "Company" refers to Harmonic Drive Systems alone, while "HDS Group" or the "Group" is used to refer to the Company and its Group companies.

Notes on forward-looking statements

Forecasts and outlook regarding future financial results indicated in this report are what the Company judged as reasonable based on currently available information. Note that such forecasts contain risk and future uncertainty, and actual achievements and financial results may differ from them.

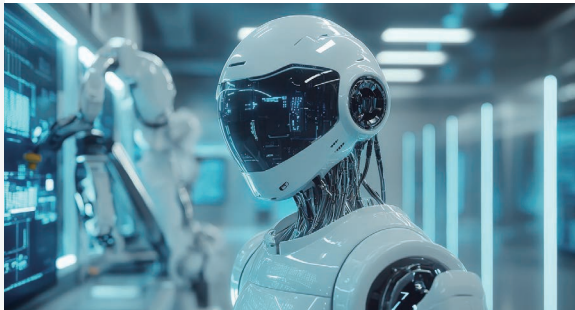
Key Topics

1

Growth Strategies in the AI Robot Market and the Chinese Robot Market

The feature articles explore trends in the artificial intelligence (AI) robot market and the HDS Group's strategic approach in the Chinese robot market. The AI robot segment is rapidly growing due to AI advancements, and local manufacturers are emerging in the Chinese robot market.

[Special Feature] Growth Strategy for the AI Robot Market	P13
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2

Messages from Presidents of Group Companies in Japan

Top executives from HDS Group companies in Japan shared their insights on the distinctive strengths of their products, their business strategies, and their ongoing commitment to sustainable growth. They discussed the strategic initiatives and competitive advantages they believe are key to fulfilling the HDS Group's mission, realizing its long-term vision, and achieving the goals of the Medium-Term Management Plan.

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3

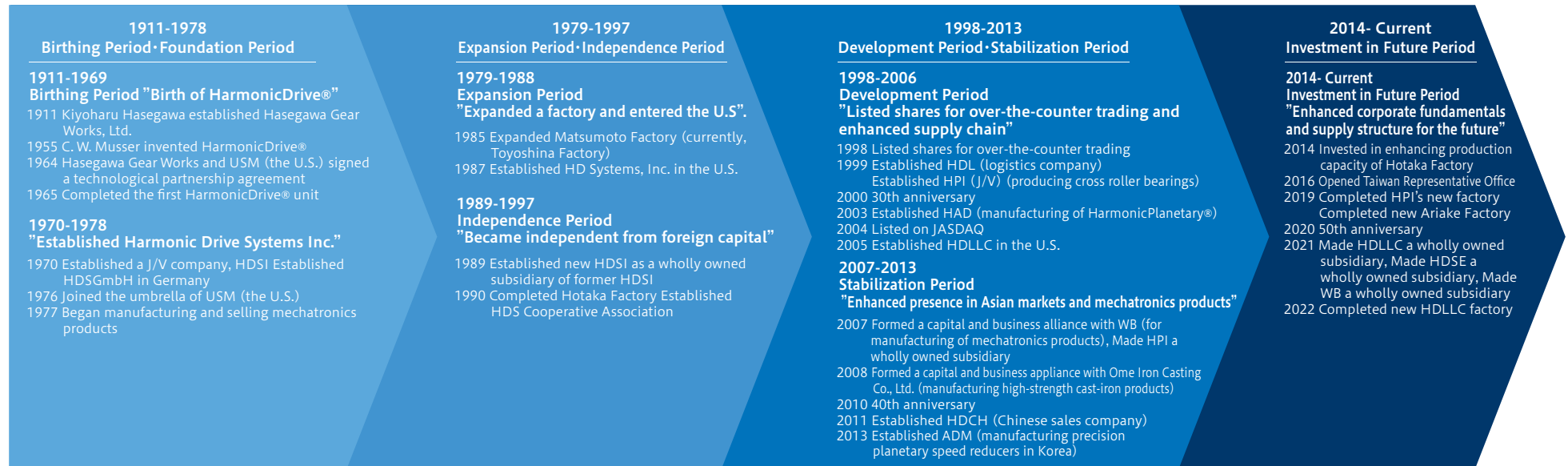
Dialogue Between an Institutional Investor and Outside Directors

An institutional investor and our Outside Directors engaged in a joint discussion on how the HDS Group can further enhance both corporate governance and profitability to ensure sustainable growth in corporate value. The discussion was forward-looking, reflecting the perspectives of both the Company and the investor.

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Corporate History



HDSI : Harmonic Drive Systems Inc.

HD SGmbH : Harmonic Drive Systems GmbH (Germany) (Currently, Harmonic Drive SE)

HDL : HD Logistics, Inc.

HPI : Harmonic Precision Inc.

HAD : Harmonic AD, Inc.

HDLLC : Harmonic Drive L.L.C (the U.S.)

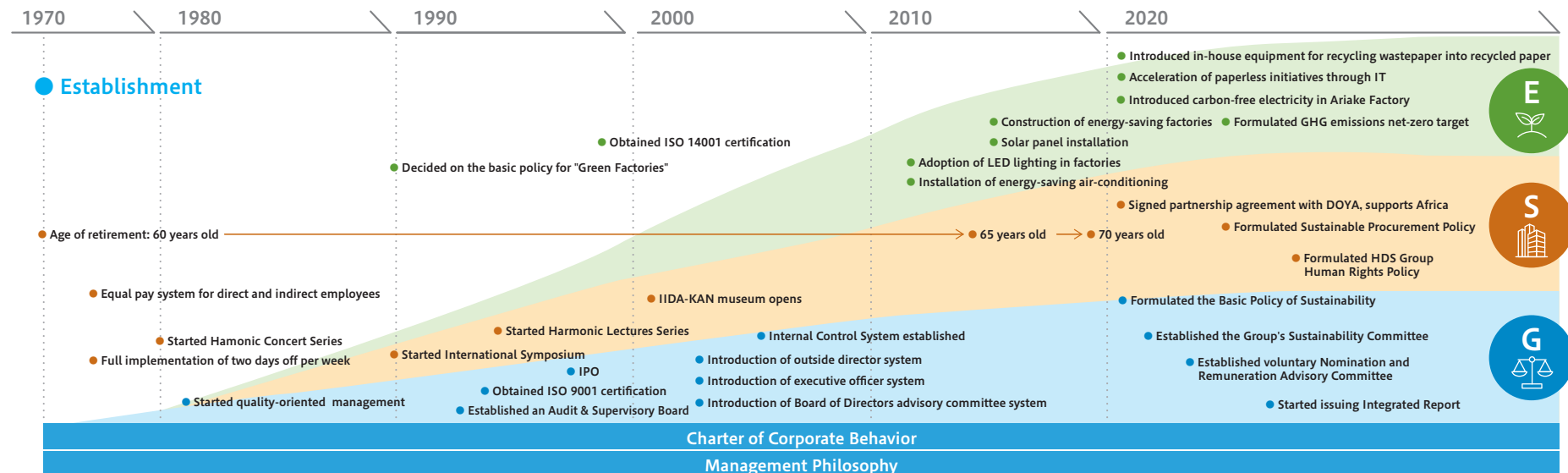
WB : Winbel Co., Ltd. (Currently, Harmonic Winbel Inc.)

HDSE : Harmonic Drive SE (Germany)

HDCH : Harmonic Drive Systems (Shanghai) Co., Ltd. (China)

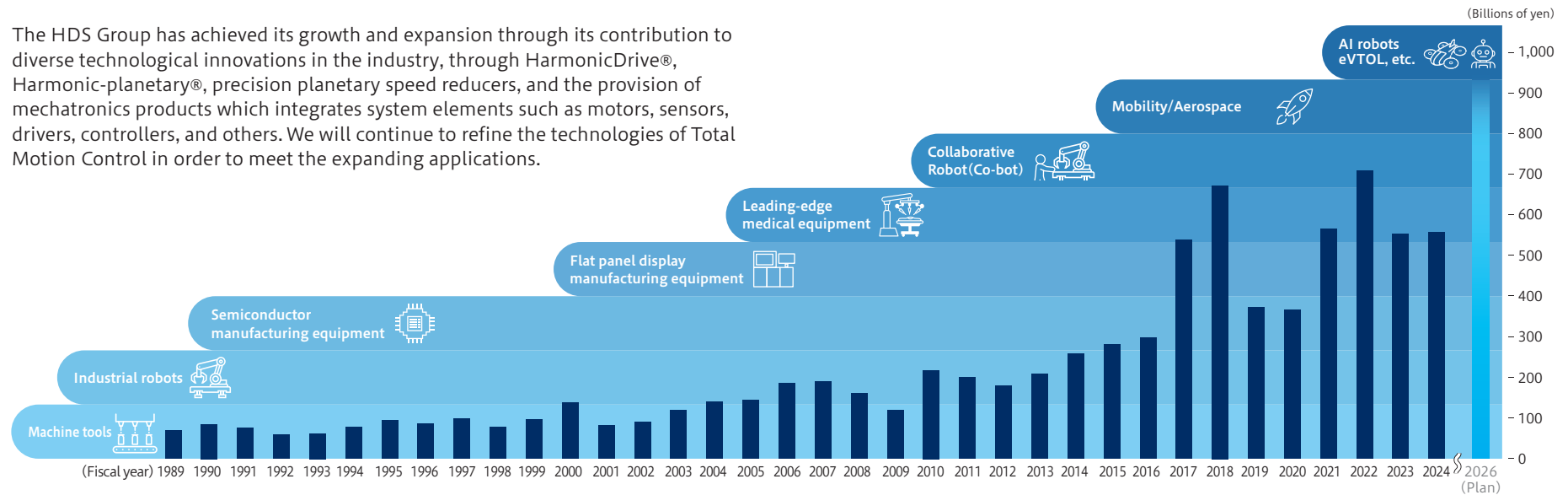
ADM : SAMICK ADM CO., LTD. (South Korea)

Our ESG efforts to improve the corporate value

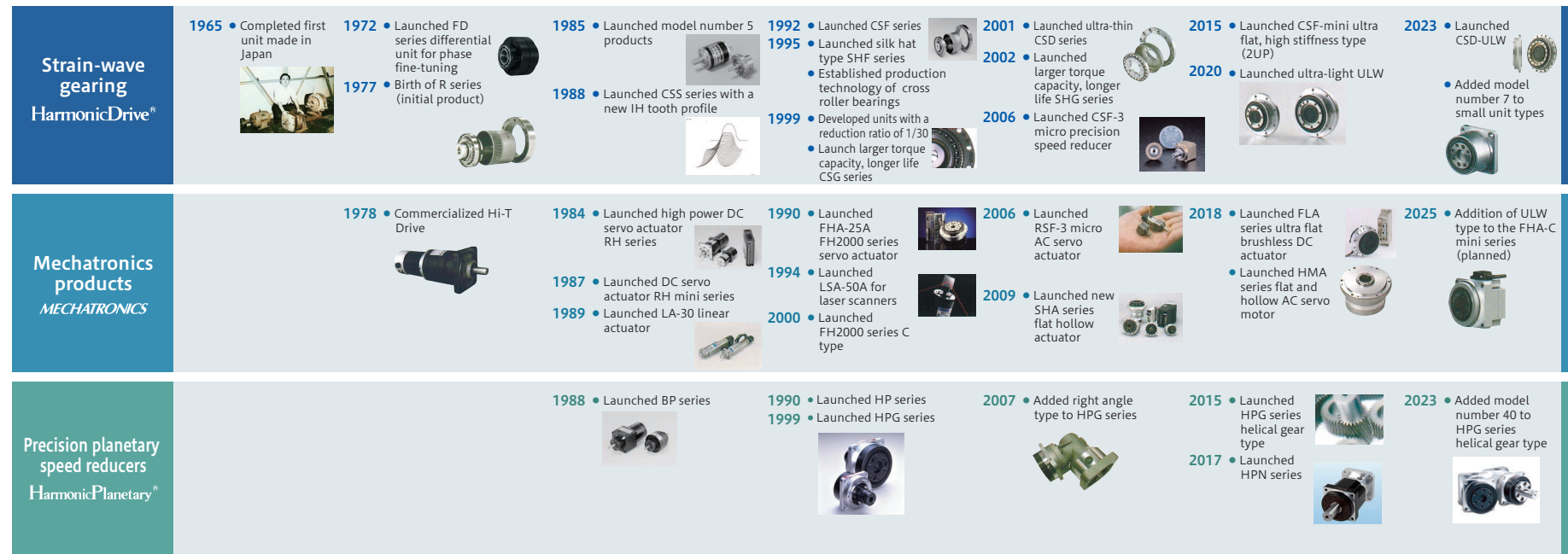


Milestones in Value Creation

The HDS Group has achieved its growth and expansion through its contribution to diverse technological innovations in the industry, through HarmonicDrive®, Harmonic-planetary®, precision planetary speed reducers, and the provision of mechatronics products which integrates system elements such as motors, sensors, drivers, controllers, and others. We will continue to refine the technologies of Total Motion Control in order to meet the expanding applications.



Diverse product groups



Characteristics and Applications of HarmonicDrive®

■ Principles of HarmonicDrive®

Our HarmonicDrive® strain wave gears, the mainstay product of the HDS Group, consist of three key components. As the wave generator forces the flexspline (flexible gear) into an elliptical shape, it engages with the circular spline (rigid gear). This mechanism achieves the unique principle of speed reduction.

■ Strengths and features of HarmonicDrive®

Using fewer components than other speed reducers, HarmonicDrive® stands out for its compact and lightweight design. The absence of any gap (backlash) at the gear engagement points ensures high positioning accuracy and excellent positional

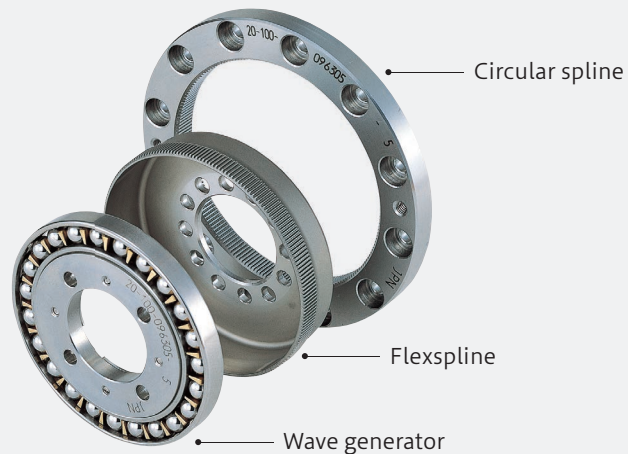
reproducibility. Its hollow structure allows cables and hoses to pass through the center of the robot unit, offering greater freedom in robot design. The gear's rigid mechanism, combined with its highly efficient and quiet operation, has earned it strong acclaim. The HDS Group's products continue to outperform competing brands in quality and performance, earning the enduring trust of customers.

■ Where can HarmonicDrive® be found?

Vertically articulated robots, for example, typically incorporate six speed reducers. Thanks to its compact and lightweight construction, HarmonicDrive® maintains a significant market share in the compact and collaborative robot segments, where five to six

units are used per robot. In robotic hands, which are designed for human-like dexterity, speed reducers are installed across 15 joints per hand (five fingers with three joints each), resulting in up to 30 units for both hands. Bipedal humanoid robots require an even larger number of speed reducers, used in the wrists, elbows, shoulders, and waist of the upper body, as well as in numerous joints of the lower limbs. Beyond robotics, HarmonicDrive® also has a strong market presence and proven performance in eVTOL (flying cars), surgical robots, and space-development applications.

● Strain-wave gears HarmonicDrive®



● Product Applications



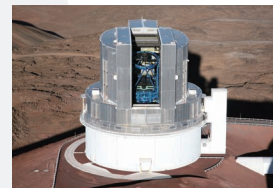
Hayabusa, Hayabusa2
Courtesy of the Japan Aerospace
Exploration Agency (JAXA)



Industrial robots



eVTOL (flying cars)



**Subaru, a large optical-infrared telescope
on Mauna Kea, Island of Hawaii**
Courtesy of Inter-University Research
Institute Corporation, National
Astronomical Observatory of Japan



Collaborative Robot (Co-bot)
Courtesy of Techman Robot Inc.



Surgical robots

History of the Industrial Robot Industry and its Future Outlook

■ Evolution of the industrial robot industry

The industrial robot market expanded from medium- and large-sized robots into small-sized robots

Industrial robots first became widely used in the 1980s because of the need for quality improvement, mass production, automation, labor saving, and workplace improvement in the automotive and other manufacturing industries. They spread again in overseas markets in the late 1990s. During this period, medium- and large-sized robots became popular in the automotive sector for applications such as welding and component conveyance. Amid the steady diffusion of industrial robots, new applications emerged such as precision assembly of small devices like smartphones, and small-sized robots advanced, resulting in market expansion from medium- and large-sized robots to small-sized robots.

Deregulation triggered the rapid growth of the collaborative robot market

In the past, operators were required to install safety fences when using industrial robots with a motor output of 80W or more. However, in 2013, the regulation was reduced to allow robots to be used without safety fences, provided they complied with international safety standards (ISO 10218-1). This regulatory change accelerated the introduction of collaborative robots (co-bots) to the shop floor for applications

such as picking, assembly, and transportation across the manufacturing sector. In 2025, ISO 10218-1 was revised for the first time in 14 years, placing greater emphasis on safety. Looking ahead, co-bots are expected to make inroads into logistics, healthcare, services, education, and other fields.

Evolution of AI accelerates the development of next-generation robots

With advances in AI technology, the development of humanoid and other AI robots is gaining momentum worldwide. The market for AI robots is expected to expand beyond the shop floor into specialized environments such as distribution warehouses, space exploration, and deep-sea development. It is also projected to enter everyday life, including long-term care and household applications, where these robots can serve as substitutes for human labor.

■ Industrial robot demand forecast

IFR revises demand forecast upward

In September 2025, the International Federation of Robotics (IFR) announced that 542,000 industrial robots were installed worldwide in 2024, representing a slight increase from the previous year. Of this total, co-bots accounted for 12% of the market, approximately three times their share in 2019. The forecast for the 2025 industrial robot market has

been revised upward from 555,000 units to 575,000 units, marking a 6% increase over the previous year. For 2026, the market is projected to grow by approximately 8% to 619,000 units (compared with the previous forecast of 575,000 units). Although the global economic outlook remains uncertain, continued demand for automation and labor-saving solutions, together with advances in AI, is expected to support market growth.

The small-sized robot segment is growing comparatively faster

According to IFR, the global industrial robot market is forecast to grow by an average of 7% per year between 2025 and 2028. Driven by expanding applications, a broader range of installation sites, and revisions to international safety standards, the small-sized robot market, including co-bots that the HDS Group focuses on, is expected to grow at a faster pace than the overall industrial robot market.

A mega AI robot market will emerge over the long term

Over the long term, the contraction of the global labor market, combined with advances in AI and related technologies, is expected to fuel explosive growth in demand for AI robots, particularly humanoid robots. Full-scale adoption is expected to begin in 2027 and beyond, potentially creating a massive market of 1.0 billion units by 2050.

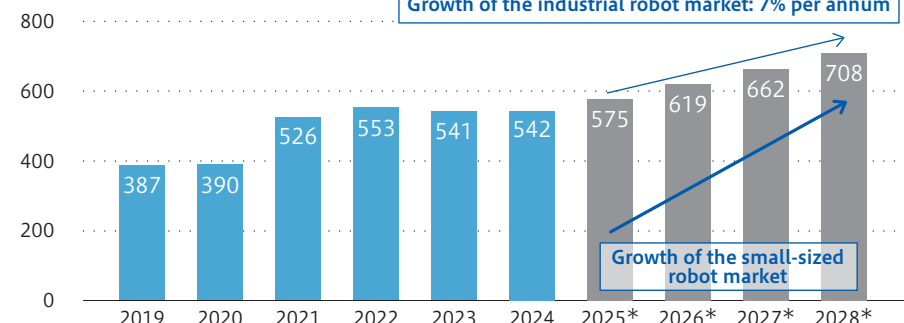
● Historical evolution of industrial robot profiles

	1980s: Industrial robots	Late 1990s: Industrial robots (small-sized)	2010: Co-bots	2027: AI robots
Sectors	Mainly automotive industry	Manufacturing in general, such as smartphones and semiconductors	All sectors	
Applications	Welding, transportation	Picking, assembly, and transportation	Substitution of humans	
Sizes	Medium- and large-sized	Small-sized (transportable weight not higher than 20kg)	Medium- and small-sized	
(Size of speed reducers)	Medium- and large-sized	Small-sized	Medium- and small-sized, ultra-small-sized	
Form of installation	Fixed	Fixed	Portable	
Factors behind expansion	Quality improvement, mass production	Substitution of workers, deregulation of safety regulations	Evolution of AI	
Market size (yearly)	Approx. 500,000 units	Approx. 70,000 units (co-bots)	Potential market estimated at 1.0 billion units	

The Company's assumption that the small-sized robot market will continue to outpace growth in the overall industrial robot market remains unchanged.

Annual installations of industrial robots 2019 – 2024 and 2025* – 2028*

('000 of units)



* Forecast value

Source: Data from the IFR World Robotics 2025, compiled by the Company

Growth Strategy for the AI Robot Market

■What is an AI robot?

There is no universally defined classification of AI robots, but the term generally refers to humanoid robots that resemble the human body in both form and function. In Japan, some of the most recognized examples include Honda Motor's ASIMO and SoftBank's Pepper, both of which have primarily been used for entertainment purposes. Many of the humanoid robots currently attracting global attention are capable of bipedal motion similar to that of humans. Accordingly, they are expected to assume practical roles traditionally performed by humans.

■Why are AI robots drawing attention now?

The process of “teaching” specific motions and operations has been a major challenge in deploying conventional industrial robots. However, with the rapid progress of generative AI in recent years, robots have effectively acquired a “brain” that enables autonomous learning, dramatically increasing their potential for real-world

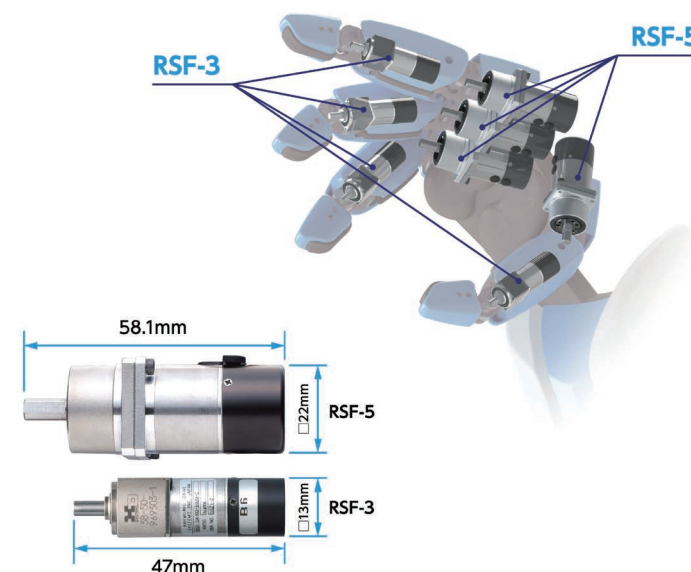
implementation. In the U.S., tech giants are investing heavily in developing the AI robot market.

■Expected applications and markets

As working-age population is shrinking due to demographic aging, AI robots are increasingly being considered for fully automated factories and unmanned logistics operations. Other promising applications include long-term care and healthcare support in welfare facilities and private homes, as well as operations in harsh environments such as outer space, the deep sea, and disaster response. According to a top executive of a U.S. manufacturer of AI and humanoid robots, “Half of global GDP is paid to human labor. If robots were to replace it, this could create a huge market worth ¥6,200 trillion annually.” Reflecting these expectations, new entrants are rapidly emerging across China and Europe, as well as in the U.S. In the near future, the market for physical AI systems, including AI robots, is projected to grow swiftly.

■The HDS Group's strategy and its impact on business performance

The Group anticipates that its existing compact HarmonicDrive® units will be adopted for the upper arms, knees, and other joints of AI robots, while its ultra-small HarmonicDrive® (RSF-3, RSF-5)—supplied globally only by the Company—will be used in the joints of robot hands. At present, the Group is receiving inquiries from nearly all AI robot manufacturers in Europe and North America, while also proactively approaching these potential partners. In addition, the Group is collaborating with major companies aiming to enter this market, initiating joint development projects for actuators, robot hands, and other robot-arm components designed to align with ongoing advances in AI and software technologies. Although current performance is somewhat below the assumptions set forth in the Medium-Term Management Plan, the Group has already begun transactions with multiple companies and expects to achieve commensurate sales growth within the next several years.

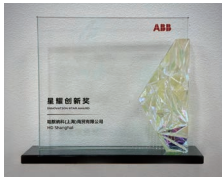


Growth Strategy for the Chinese Robot Market

In the Chinese market, the HDS Group aims to secure a 20%+ share by 2030 by leveraging our competitive advantage backed by superior product quality and execute the optimal growth strategy.

President
Harmonic Drive Systems (Shanghai) Co., Ltd.

Takeshi Nakahira



Topics

INNOVATION STAR AWARD received from ABB Engineering Shanghai Ltd. for the first time

The accolade was earned in recognition of our many years of contribution to their robot development, our technological partnership, and our close business collaboration.

Q: Why do you think our products have won admiration in the Chinese market?

A: Harmonic Drive Systems (Shanghai) celebrated its 15th foundation anniversary in 2024, registering a record-high level of net sales. The prime driver behind this accomplishment is a pickup in demand from local robot manufacturers in China. Our technical support capability, as well as the performance and reliability of our products, sets us apart from the pack. However, one concern is the erosion of selling prices. We remain flexible in this regard, seeking a common ground acceptable to both parties while prioritizing the bottom line. In fact, customers tell us they want to shift away from competition based solely on prices and strengthen their edge in the high-end market and overseas by improving product quality. Partly because of this, a steadily increasing number of customers choose to adopt our products.

Q: How are you expanding the customer base?

A: In fiscal 2024, we sold to approximately 330 companies. In addition to customers in the robot business, an increasing number of customers are involved in developing semiconductor manufacturing equipment intended for domestic production in China. These customers highly value our delivery track record in Japan and the U.S., as well as our extensive line of compact and high-precision products. By

product category, our sales break down to more than 70% for industrial robots, followed by 5-10% for semiconductor manufacturing equipment, with the remainder derived from machine tools. The largest customer segment in China consists of local manufacturers of midrange products.

Q: Could you update us on the Chinese market's growth potential?

A: The industrial robot market (including co-bots and humanoid robots) in China is expected to grow by over 10% per year up to 2027. We are experiencing an increase in projects related to AI and humanoid robots. Multiple companies are accelerating their transition to mass production. In addition to existing robot manufacturers, we have begun engaging joint module manufacturers. Furthermore, we expect to capture demand resulting from the domestic production of semiconductor manufacturing equipment in China. We believe that we have the potential to outperform market forecasts depending on the pace at which demand for AI and humanoid robots grows.

Q: How do you anticipate your market share and future industry trends?

A: Our market penetration in China rose from 9.3% in 2023

to 12.1% in 2024, buoyed by increased adoption by large accounts. Although we expect a slight decline in 2025 due to intensifying competition among robot manufacturers, we are targeting at least a 20% market share by 2030. I would imagine that the companies that ultimately prevail in China's robot industry are those that can withstand pricing competition. Similarly, for speed reducer manufacturers, the ability to achieve profit growth through cocreation with customers is what separates the winners from the losers.

Q: What are your proactive strategies and targets for mid- to long-term performance in the Chinese market?

A: A collaborative project has already begun with a leading local servomotor manufacturer in China. We aim to expand our market share and boost revenue growth, led chiefly by business with local robot manufacturers in China. To this end, we will strategically collaborate with local partners in China, capture selected target customers and utilize a strategic sales tie-up with Servo Dynamics. In fiscal 2024, our net sales and operating profit were ¥5.6 billion and ¥0.5 billion (operating profit margin: 9.0%), respectively. Looking ahead to fiscal 2027, we aim to achieve net sales of ¥6.8 billion while maintaining profitability.



Message from the President & CEO



Harmonic Drive Systems Inc.

株式会社 ハーモニック・ドライブ・システムズ



Harmonic Ito Foundation

公益財団法人 ハーモニック伊藤財団

President and Representative Director
CEO

Akira Maruyama

As society continues to change dramatically,
I keep asking myself “What is it that we can deliver?”
and “What is the raison d’être of the HDS Group?”
to maintain our leading position.

Key Points

- The initiatives implemented to address pressing issues have made steady progress in the first year of the HDS presidency.
- A collaborative business model with local manufacturers has been set in motion in the Chinese market.
- Strategically developing core technologies to foster growth in the physical AI market.
- Developing multifaceted, forward-looking initiatives will lead to sustained improvement in corporate value.

A corporate culture that encourages employees to embrace challenges and strategic moves aimed at renewed growth

Fiscal 2024 orders in review and outlook for fiscal 2025

After hitting a peak in fiscal 2022, our order numbers remained pressured as customers built up the inventory. Now that their inventories have been optimized over the past year, however, the HDS Group’s order volume has been showing a moderate recovery trend. Yet end demand itself has not been as strong as we had expected, resulting in a somewhat mild recovery overall. By region, the order volume in Japan remains subdued but is showing signs of recovery. In China, by contrast, we achieved a notable gain in market penetration, driven by proactive engagement with robot manufacturers. In Europe, despite the sluggish market in Germany, we performed relatively well. We are establishing a structure to reduce dependence on robots and semiconductors by strengthening the Aviation and Space segment. We are targeting ¥3.0 billion in consolidated net sales for the

aerospace field in fiscal 2026. In the U.S., the robot industry is relatively small, and our primary markets are medical equipment and semiconductors. A quality issue at one of our key customers there created a temporary setback, which required some time to resolve.

By market, the market for industrial robot-related products is on a recovery track, but we expect that it will take additional time before demand for physical AI-related products, including AI-enabled robots, begins to expand in full swing. In the market for semiconductor manufacturing equipment, products for generative AI and data centers are in strong demand, but we expect the overall recovery to remain mild. The signs of recovery in applications for automobiles and automotive components are also limited, and we remain cautious in our outlook for fiscal 2025. In other words, it is not realistic to assume a quick turnaround in order volume in the latter half of fiscal 2025. Simultaneously, we do not believe that this mild recovery trend will be remarkably derailed.

Message from the President & CEO

Initiatives to foster a challenge-embracing culture

One of the management agenda items I have focused on since assuming the presidency is rebuilding a corporate culture that encourages employees to once again embrace challenges. Over the past year, I have taken every opportunity to tell our employees repeatedly to take on challenges without being afraid of failure. Alongside this attitude of embracing challenges, I have consistently emphasized our Management Philosophy and the targets of the current Medium-term Management Plan in the context of our corporate vision. By continually reinforcing this message, it has begun to take hold subconsciously, gradually reshaping employee behavior. Some employees have already begun acting accordingly and delivering results, and I can say that something new, distinct from what we previously knew, is spreading across the Company.

All this has led me to say that fiscal 2024 was a year of action. What were once mere words and slogans have now taken the form of tangible actions on the ground. Of course, some actions produced results, whereas others did not. Even so, the action-oriented mindset has begun taking root in our workplace. I am delighted to say that the mindset of taking action without fear of failure is gaining strong momentum within the Group.

One of the symbolic initiatives in this regard is the company-wide cost innovation project. It is not a mere extension of traditional approaches that aim to reduce cost by 1-2% per year but challenges the very idea of manufacturing. This company-wide project has triggered a move toward pursuing improvements through open, creative thinking. For instance, we start by asking ourselves whether continuing to use the same tools is truly appropriate or whether we may be using them inefficiently, prompting ourselves to explore improvement plans in a new light. By taking action first, we search for new possibilities and put the feasible ones into action. These attempts have become commonplace in the Company, producing concrete outcomes attributable to the challenge-embracing culture. They did not originate from top-down directives but are the result of a challenge-embracing mindset that has grown from the ground up. This clearly indicates that the challenge-embracing culture has begun to take hold, and I feel this will give us tremendous strength going forward.

Leveraging external knowledge and encountering a start-up business

In fiscal 2024, I deliberately spent considerable time building networks and holding information exchanges with those outside the Company. I spoke with many people, including those I met through Chairperson Nagai's networks, to hear "What is happening now and where?" and shared their insights with employees. I am not doing this just to gather information; it prompts me to consider how we can leverage ideas from other industries for the benefit of our Company, updating my thinking. In particular, an encounter with a start-up business in the physical AI field has brought fresh, unconventional ideas and the possibility of collaboration. Technological fusion between AI and robotics is never easy, and it has yet to gain the traction that the capital market had hoped for. Nevertheless, the HDS Group has seen a steady increase in inquiries and offers for joint development. We are in the process of "sowing seeds" and are advancing these future-oriented initiatives as I speak. I make it a habit to bring takeaways from dialogues with corporate managers and engineers from other

industries back to the Company to stimulate discussions. Such input from outside helps us reaffirm where the Company stands today and broaden our horizons. I have also been mindful of the need to encourage employees to engage with people outside the Company to sharpen the attentiveness of every member of the Group. Moving forward, actively pursuing alliances with external partners and integrating knowledge with them will be positioned as one of the pillars of our growth strategy aimed at realizing our long-term vision.

Challenges for deepening the relationship of trust

We still have a way to go before we can say we have successfully addressed the other challenge: achieving speed and flexibility in customer service. The distinguishing characteristic of the Group's business model is that we have evolved by keeping HarmonicDrive® strain wave gears as our core offering while providing products customized for each individual customer. It is this customization and the R&D it entails that constitute our core competencies. The added value that the Group provides is our ability to customize products to the specifications that our customers' engineers want to use. If there is anything we need to reflect on, it is that we may have rested on our laurels, with HarmonicDrive® having been a one-of-a-kind product. That said, we have begun to sense signs of change. We are currently teaming up with a customer on a project that is technically demanding. We have yet to see any tangible results from this project, but we have already demonstrated our firm commitment to getting things done. The customer was impressed by the depth and breadth of the services HDSI delivers. Over our relationship spanning 30 or even 40 years, this was the first time they had commended us in such a way. Such recognition truly helps deepen a relationship of mutual trust that goes beyond products and technology. We will continue integrating production, sales, and supply chain functions without letting our guard down, enabling ourselves to make swift decisions on local-spec customization and pricing to enhance the speed and flexibility of our service.

By demonstrating our firm commitment to getting things done, we can deepen a relationship of mutual trust that goes beyond products and technology.



Deepening the strategy for the Chinese market and extending our reach

According to the International Federation of Robotics, the number of industrial robots installed worldwide in 2024 increased by 0.2% from the previous year to 542,000 units. By country, while installation numbers declined across major countries, China achieved 6.9% growth to 295,000 units, earning a 54% share of the global market. Because China continues to lead global demand for industrial robots, how we address the Chinese market is extremely important.

Meanwhile, the number of robots produced by local Chinese manufacturers keeps increasing, and their robot density (the number of industrial robots in service per 10,000 manufacturing workers) now ranks third in the world, surpassing those of Japan and Germany for the first time. We believe the next stage will be China's increasingly sophisticated use of robots, which in turn will drive a surge in demand for high-end industrial robots. For the HDS Group, this means that Chinese local manufacturers now account for a growing share of our customer base and that our exports to China are increasing.

Transitioning from preparation to harvesting: New developments in the Chinese market

In the latter half of fiscal 2024, we ventured into a segment of the Chinese market that had been challenging to enter and launched new initiatives, including the combined use of local components and local assembly. This is our bold attempt in the Chinese market, and it is highly important as a strategic move in anticipation of our global business going forward. This effort has already paid off, and we now collaborate closely with local manufacturers in the midtier segment. By combining locally produced components with our products, we are now able to offer competitive products, which in turn is helping to establish a sales model that did not exist before. This initiative has given our employees the opportunity to design a new business model, fostering a workplace atmosphere that encourages them to take on challenges without being bound by conventional wisdom.

Furthermore, our relationship with Chinese customers has advanced from merely providing products to engaging in a cocreation business—a framework for joint development and improvement that is about to be launched. We now have a connection with local manufacturers, with whom we had little contact previously, giving us greater flexibility in marketing our offerings there. Meanwhile, HarmonicDrive® has begun to be used in co-bots, a market in which local Chinese manufacturers have an overwhelming share. I consider this a testament to our brand's growing recognition in China, as well as to the steady trust that we have earned in our technology, beyond merely expanding sales and market share. In the Chinese market, customers value speed and flexibility in addition to price and specifications. These developments provide an important learning opportunity as the Group advances its business model for the future.

Future outlook and a path to achieving sustainable growth

Chinese local manufacturers are likely to gain a greater presence in the industrial robot market, but the HDS Group will maintain a policy of offering high-value-added products without engaging in price competition. Accordingly, we are expanding our product line to better cater to local demand. One potential future initiative is the launch of a second brand exclusive to the Chinese market.

A growing number of local robot manufacturers are aiming to expand overseas, and quality requirements for our speed reducers and other products will only become more advanced. But it is precisely here that the Group's business opportunity emerges. The Group's ability to deliver quality and reliability that meet global standards is one of its key strengths. We will aim to become a preferred partner built on long-term trust, rather than competing solely on price or delivery performance. We see this initiative in the Chinese market as a symbolic step in the Group's evolution, and we will extend its outcomes to other regions.

Taking a crack at the physical AI market and technological innovation

Current market conditions and key challenges perceived

In the capital market and elsewhere, expectations that the physical AI market would see a rapid pickup in demand around 2024 were building. In reality, the physical AI market has not expanded at the pace initially anticipated due to multiple technical hurdles. Although AI and sensing technologies continue to advance rapidly, major issues remain regarding how to embed these technologies into physical AI systems to achieve a precise, coordinated motion control of robot forearms. Our current

perception is that we are in a phase where we are determining “what is required,” rather than exploring “how it should be used.” At present, the development and assessment of relevant technologies and system components are outpacing the establishment of clear use cases.

Nevertheless, global attention to the physical AI field has grown remarkably over the past year—enough to suggest that future demand is positioned for substantial acceleration. While monitoring this emerging trend with composure, the HDS Group will steadily implement measures to strengthen its core technologies and respond to changes in the market.

Message from the President & CEO

Development of customized integrated actuators

In the physical AI market, the HDS Group is focusing on the development of actuators that integrate drivers, as well as speed reducers, motors and sensors. The conventional approach of connecting an external driver via a long wire is not suited for mobile physical AI systems, which require far more compact and sophisticated configurations. Integrated actuators have the potential to be applied across a wide range of motion control solutions, extending well beyond just physical AI systems. In the European and North American markets, in particular, actuators appear more promising than stand-alone speed reducers, offering the potential for strong future returns. We have already received exceptionally positive feedback from several customers, and with technological integrity approaching completion, we are preparing for a full-scale launch in 2026 at the earliest.

That said, several issues remain, including the development of mass production systems and the optimization of manufacturing costs. Integrated actuators offer substantial expandability for next-generation robots, including physical AI systems, but we must elevate our initiatives further before they can secure a strong foothold in the market. Our policy is to prioritize establishing a reputation for integrated actuators as high-performance, affordable, and reliable solutions that address customers' real-world challenges, rather than simply introducing novel technologies.

Our Group's medium- to long-term goal is to establish integrated actuators as a core of the next growth areas and as a *de facto* standard for physical AI system control. We intend

to build enduring competitiveness by delivering products backed by reliable technology, rather than pursuing quick results. Simultaneously, we will pursue opportunities to maximize profitability by refining the functions and specifications of existing models, consistent with our company-wide cost innovation project. By reviewing procurement, production, and design functions from a cross-functional perspective, we will build a system that achieves total optimization for the Group, strengthening competitiveness while protecting the value added, rather than merely focusing on cost reduction.



Assessing the growth potential of physical AI demand to deepen core technologies and address market changes.

Management that enhances corporate value in a sustainable manner

Pursuing future business opportunities and taking steps toward sustainable operations

Looking back on the first year of the current Medium-term Management Plan, I must acknowledge that our business plan projections were more optimistic than conditions warranted. Even so, the forward-looking initiatives we undertook have established a solid foundation for sustained future growth. Among these strategic moves are fostering a challenge-embracing culture, deepening the strategy for the Chinese market, advancing technological innovation for the physical AI market, and strengthening our profitability profile through the company-wide cost innovation project. Our management policy for fiscal 2025 is to solidify the foundation that supports future growth by further strengthening profitability and broadening partnerships and joint development opportunities.

In an operating environment where the pace of change continues accelerating, we will remain open to new ideas and continue moving forward, guided by the strength that comes from the frontline. As we proceed toward the future, what matters is not only achieving short-term results but also building corporate value through

continuous innovation. To secure an indispensable position in society and continue developing technologies and a corporate culture that we can proudly share with the world, we will keep advancing without hesitation.

In any era, it is human resources that underpin sustainable corporate value. The employee engagement survey we conducted in fiscal 2024 made one thing clear: despite a strong appetite to take on challenges, some employees feel their efforts are not sufficiently recognized. With this in mind, beginning in fiscal 2025, we introduced new personnel systems designed to properly evaluate challenge-driven behavior and unlock the individual “brain power” that fuels our growth. To honor the manufacturing craftsmanship that forms the source of the Group’s strengths, we will also introduce a system akin to a meister-style program for highly skilled professionals. This framework will formally recognize those who push their expertise to the highest level and ensure that they are rewarded accordingly. Through these efforts, we intend to spark greater initiative, elevate engagement, and channel that energy into the collective strength of the Company.

Over the past several years, we placed priority on growth investments, but the results have been limited, causing operating profit to stagnate. Although it is difficult

Message from the President & CEO

to estimate exactly when the investments we have made will bear fruit, we recognize the need to build a solid foundation for generating profits on our own. The company-wide cost innovation project is a key step in returning to this foundation. This project encourages us to question the conventional idea of manufacturing to improve profitability while preserving the value added. I consider fiscal 2025 and beyond as years of “harvesting,” when we begin to reap the benefits of the forward-looking initiatives and translate them into tangible results, establishing stronger corporate fundamentals that support ongoing earnings.

Sustainable management enhances corporate value

Corporate value cannot be measured solely by numerical indicators, such as net sales or operating income. Rather, I believe that it is defined by the *raison d'être* of our Group and the extent of trust we have built. The precision control technology that we provide is expected to play an increasingly important role as AI, robotics, and other technologies continue to advance. As these technologies become embedded in society and form the foundation of future lifestyles and industries, the responsibility we are expected to fulfill will inevitably grow.

The Group's Mission is “to contribute to innovation in society by our motion control technology,” and we aim to be “the best provider of total motion control in harmony with the future” as our long-term vision states. As society continues to change dramatically, I keep asking myself, to maintain our leading position, “What is it that we can deliver?” and “What is the *raison d'être* of the HDS Group?” I firmly believe that the persistent search for answers to these questions is what truly matters in continuously enhancing corporate value. Over the years, I have gained experience in various business operations of the Company, including production, design, development, and sales. I also spent time in the corporate planning division, where I helped shape the Company's overall business strategy. These experiences have given me a broad perspective on the Company, something I value greatly. Drawing on this background, I will continue to exercise decisive leadership.

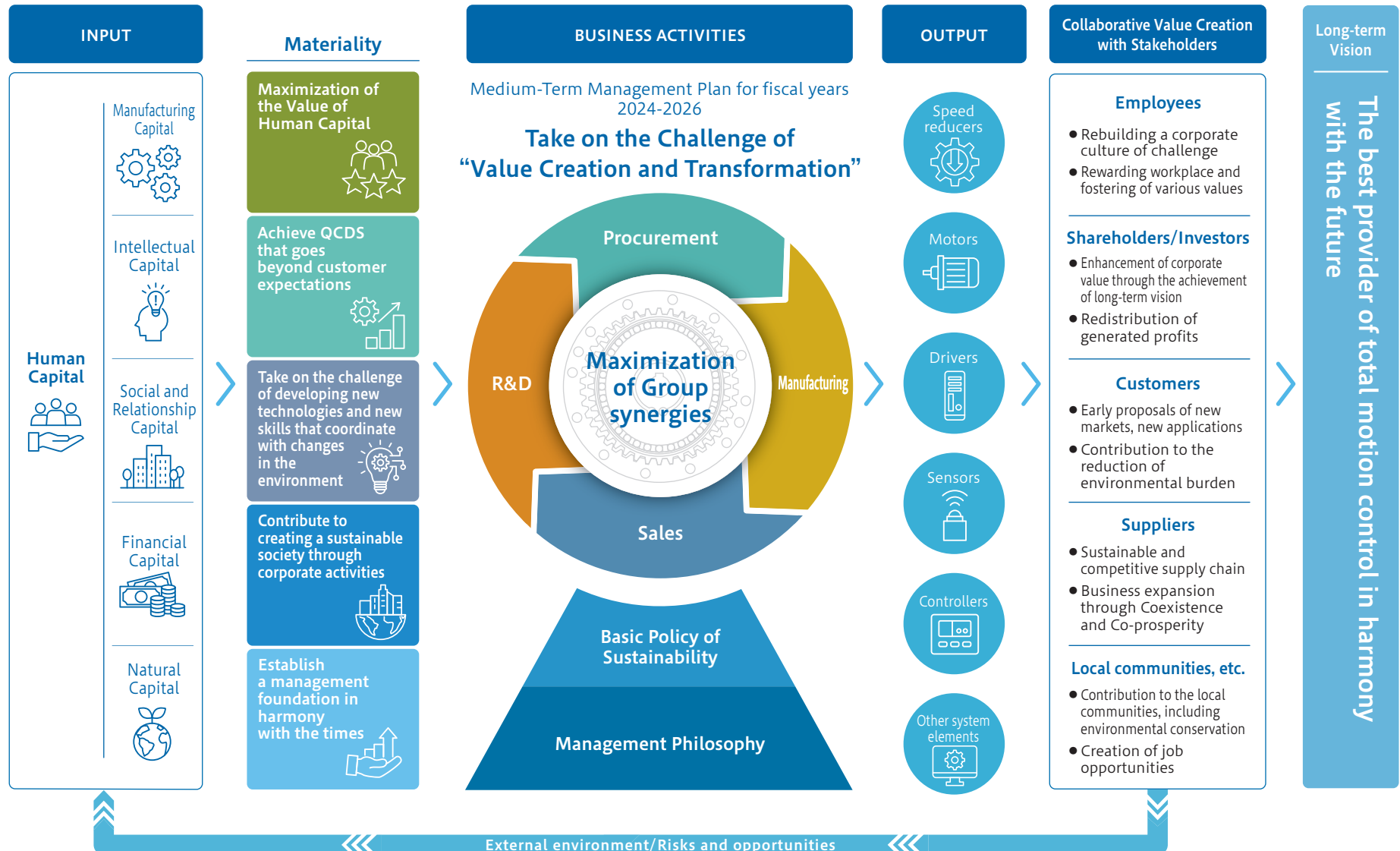
At the HDS Group, we will continuously enhance corporate value by maintaining ongoing dialogue and engagement with shareholders, investors, and other stakeholders; addressing issues that emerge through such dialogues; and fostering strong relationships of trust. By embracing change and continuing to take on challenges, we will fulfill our mission of contributing to society. I sincerely hope that our stakeholders will continue to extend their generous support to the HDS Group.



By embracing change and continuing to take on challenges,
we will fulfill our mission of contributing to society.

Value Creation Process

Mission | To contribute to innovation in the society by our motion control technology



Management Capital as a Driver of Value Creation

In order for the HDS Group to achieve sustainable growth, it is important for us to accurately identify the surrounding social issues and business environment, specify risks and opportunities, and produce outcomes that lead to increased corporate value. These outcomes will be created from our inputs that are our strengths and through our unique business activities based on our Management Philosophy. Through this process, we will strive to achieve our mission and long-term vision.

Aspirations stated in the Medium-Term Management Plan for Fiscal 2024–2026 1 What do we aim to achieve? Sustainable growth of all businesses with an emphasis on profitability 2 What is necessary to achieve this? Strengthen management resources (people, things, money, information) that can adapt to changes in the environment 3 Sustainability Initiatives to enhance corporate value that will continue into the future					
	Refer to:	Strengths	INPUT (FY2024)	Highly relevant materiality	OUTCOME (FY2024-FY2026 Medium-term Management Plan)
Human Capital 	P64~P66	Support for challenges and appropriate evaluation of each individual based on our Management Philosophy of “Respect for the Individual”	Number of employees (consolidated): 1,384 (including 613 overseas)	Maximization of the Value of Human Capital	- Individual growth and exercise of diverse skills - Thorough implementation of QCDS + Speed that meets beyond customer expectations - Fostering a culture that goes beyond conventional mindsets
Manufacturing Capital 	P37~P48	8 domestic and 4 overseas production bases, and a build-to-order system that creates competitiveness	Capital investment: ¥3.76 billion; ratio of property, plant and equipment to total assets: 40.4%	Achieve QCDS that goes beyond customer expectations	- Enhancing productivity through the promotion of automation and DX adoption - Ensuring absolute superiority in product quality
Intellectual Capital 	P49~P50	Quality standards that meet customer expectations and progress in total motion control	- R&D expenditure: ¥3.77 billion 148 R&D personnel	Take on the challenge of developing new technologies and new skills that coordinate with changes in the environment	- Development of new driers for growth - Solutions that meet customer needs
Social and Relationship Capital 	P61~P63	Supply chain structure that supports competitiveness and an enhanced global presence	- HDS Cooperative Association: 34 companies 32 global sites in 12 countries	Achieve QCDS that goes beyond customer expectations	- Maintaining No. 1 market share - Coexistence and Co-prosperity with suppliers
Financial Capital 	P31~P36	High financial stability, growth investments, including use of interest-bearing liabilities	- Total assets: ¥113.6 billion - Net assets: ¥78.9 billion - Interest bearing liabilities: ¥15.6 billion	Establishment of a management foundation in harmony with the times	- Achieving ROE that exceeds capital cost - Balancing financial stability with growth investments
Natural Capital 	P58~P60	Promotion of business activities aimed at reducing environmental impact	- Energy input: 42,263 MWh - Water withdrawals: 28,041m³	Contribute to creating a sustainable society through corporate activities	- Developing products that reduce environmental impact - Promoting Net Zero GHG emissions
External environment/ Risks and opportunities	- Reduction of global environmental burden and realization of a decarbonized, recycling-oriented society - Decrease in workforce and skilled workers - Increased interest in sustainability - Establishment of robust supply chain Our Group's customers are increasingly paying attention to global environmental issues such as decarbonization and resource recycling, and request for information disclosure on these issues. Delays in addressing these issues may lead to a decrease in business opportunities for the HDS Group. On the other hand, the decline in the working population and the number of skilled workers will lead to an increase in demand from robot manufacturers and others, who are our customers, and the Group will also need to strengthen its production system and establish a sustainable supply chain.				

Reinforcing Value Chain for Value Creation

Since the sale of HarmonicDrive®, the HDS Group's flagship product, is affected by the capital investment trends of our customers, including manufacturers of industrial robots, semiconductor manufacturing equipment, and machine tools, demand is highly volatile. This trend has become increasingly pronounced in recent years. To strengthen our Group's ability to respond to demand fluctuations, we need to cooperate with suppliers including the HDS Kyoryokukai (HDS Cooperative Association), increase our production capacity, and gain insight into anticipating what will happen beyond demand. We will further reinforce our value chain and maximize the value we create, thereby achieving profit growth over the medium- to long-term.



Sales

— Market and Application Development —

- Reinforcement of capability to solve customers' issues
- Maintain our position as a top manufacturer in the precision control market

Message from
the officer in
charge P51

Themes of medium-
to long-term
importance

- Increase our capabilities to respond to our customers (speed, in particular) and customer satisfaction
- Maintain and expand the HDS Group's position with key customers

Initiatives

The unique feature of HarmonicDrive®, the HDS Group's core product, is that it is customized according to the individual needs of our customers. The sales section aims to improve customer satisfaction by refining its unique solution sales style that goes beyond what our customers demand from us and strengthen its capabilities to support our customers through system reforms and other measures. Specifically, it works with the Motion Control (MC) Development Group to conduct the solution-based selling that will meet our customers' demand. Our basic policy is to make sales through our direct sales and sales agents domestically and directly overseas. In October 2024, the latest data-driven Sales Digital Transformation (DX) began full-scale operations. This allows us to collect and analyze data such as demand forecasts, inventory status, orders, and we will build a structure under which we can develop our sales activities more strategically. We will make the most of this framework and continue to build a structure that enables even more strategic sales activities.

Values expected to be created

- Products that create new value
- Strengthening of total motion control
- Improvement in abilities to meet customer needs

The sales team sets achieving QCDS that meets customer expectations as the most important materiality, while maximizing the value of human capital and taking on the challenge of developing new technologies and skills that coordinate with changes in the environment are also important.



R&D

— Provision of Products Suited to the Times —

- Research and development of products that help our customers reduce their environmental impact
- Pursuit of development efficiency and development talent enhancement

Message from
the officer in
charge P49, P50

Themes of medium-
to long-term
importance

- R&D on various motion mechanisms to realize total motion control
- Pursuit of development efficiency and strengthening the development of human resources in R&D

Initiatives

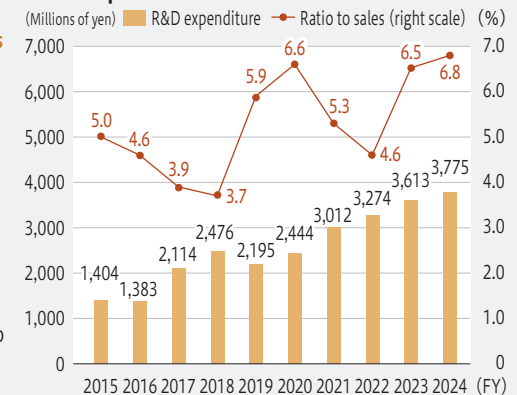
Our Group's R&D structure consists of three divisions: the Development and Engineering Division that develops and designs standard catalogue products and develops and designs products based on customer requests mainly in Japan; the New Mechanism Principle Laboratory that freely explores new principles and mechanisms beyond the boundaries of existing products; and the Harmonic Drive Laboratory that investigates deeply the basic technology supporting HarmonicDrive® to find possibilities for enhancing its performance. We have also established an office in Silicon Valley in the United States, where world-leading technologies such as AI and robotics are concentrated, and we conduct research and studies on next-generation products such as physical AI in collaboration with local research institutions and other partners.

Values expected to be created

- Innovative proprietary technologies
- Reduction of customers' environmental burden

The R&D team identifies market and technology trends and customer needs at an early stage to support proposals that go beyond their expectations. Its most important materiality is to take on the challenge of developing new technologies and skills that coordinate with changes in the environment, and to achieve that, it is essential to maximize the value of human capital.

R&D expenditure and ratio to sales



Reinforcing Value Chain for Value Creation

To this end, it is essential to make full use of our management capital centered on human capital, which is one of the HDS Group's strengths, to demonstrate the strength of our superior value chain by taking into account our materiality and maximization of group synergies in our business activities. We will be committed to solving social issues and improving corporate value through the provision of total motion control, by accurately capturing market and technological trends and customer needs at an early stage and by continuing to develop products and make proposals with an eye to the future.



Procurement

— Robust Supply Chain —

- Strengthening cooperation with suppliers centered on the HDS Kyoryokukai (HDS Cooperative Association)
- Unique components exclusive to the HDS Group made with advanced technology

Message from
the officer in
charge P61~P63

Themes of medium-
to long-term
importance

- Building and strengthening a system for stable supply (collaboration with the HDS Cooperative Association)
- Comprehensive capability of the entire supply chain and high quality

Initiatives

Stable procurement of materials and parts is essential to definitively capture new business opportunities. In FY2022, our Group formulated the Sustainable Procurement Policy, and the Supply Chain Division has been working to strengthen our supply chain by focusing on three key measures, namely, (1) strengthening a system for stable supply, (2) strengthen comprehensive capability of the entire supply chain, and (3) human resource development as priority measures. In order to embody our Management Philosophy of Coexistence and Co-prosperity, it is important to maintain a close relationship with our primary suppliers, including the HDS Cooperative Association and this will lead to the enhancement of our ability to address issues related to quality and delivery deadlines. To achieve the targets of the Medium-Term Management Plan, the Supply Chain Division is promoting (1) improving the quality of purchased components, (2) establishing a procurement framework for the mechatronics business, and (3) optimizing costs.

Values expected to be created

- **Appropriate response to delivery deadlines**
 - **Global environmental protection and response to business and human rights**
- In procurement, the most important materiality is to achieve QCDS that meets customer expectations; however, suppliers' awareness of sustainability (e.g., reduction of environmental impact, response to human rights, etc.), contributing to a sustainable society through corporate activities and maximizing human capital value are also important.



Manufacturing

— Stable supply of high-quality products —

- Advancement of skills and production technology
- Manufacturing lead time that meets delivery schedule requested by customers

Message from
officer in charge /
round table
P37~P48

Themes of medium-
to long-term
importance

- Human resource development at the Hotaka Factory and distributing workloads evenly by promoting multi-skilling of workers
- Improving profitability by rolling out automation technology developed at the Ariake Factory to the Hotaka Factory

Initiatives

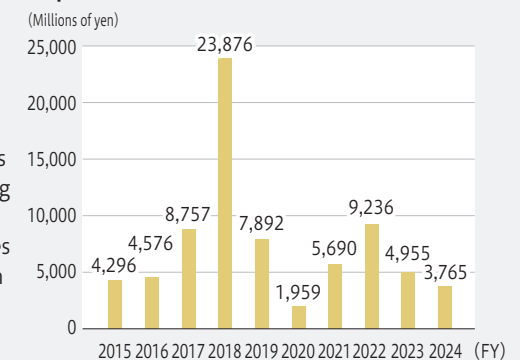
The HDS Group generates added value through manufacturing, as indicated by its balance sheet, where property, plant and equipment account for 40% of total assets, and continues to innovate production for high quality and high reliability. At the Hotaka Factory, we engage in high-mix low-volume production with advanced expert skills and at the Ariake Factory, we work to maintain high quality and further increase productivity through mass production of same type by promoting automation and DX. In this way, we meet customer requests. To add more value and manufacture higher-quality products, our production subsidiaries have established production systems in the Komagane Factory (HWB), which manufactures mechatronics products; the Toyoshina Factory (HAD), which manufactures precision planetary speed reducers; and the Matsumoto Factory (HPI), which manufactures cross-roller bearings.

Values expected to be created

- **Provision of high-quality, highly reliable products**
- **Reduction in manufacturing lead time**

In manufacturing, the most important materiality is to achieve QCDS that meets customer expectations; while, maximizing the value of human capital, taking on the challenge of developing new technologies and skills that coordinate with changes in the environment, and contributing to a sustainable society through corporate activities are also important.

Capital investment



Materiality to Achieve Aspirations

We place our Management Philosophy at the core of our business activities and uphold the mission, “to contribute to innovation in the society by our motion control technology,” aiming to realize a sustainable society, increase corporate value, and grow our business.

In modern society where things are changing rapidly and all kinds of social issues have been brought to the fore, it is increasingly critical to build a management foundation that can flexibly respond to short-, medium-, and long-term opportunities and risks in the future and to contribute to the solution of social issues. We have identified priority challenges for the sustainable growth of the HDS Group as material issues (materiality) and incorporated them into our

business strategy, addressing them with a medium- to long-term view.

In identifying materiality, we focused on ensuring consistency with social requirement as well as Management Philosophy and business strategies. For impact assessment, we look at it from the perspective of social sustainability and sustainable growth of the HDS Group.

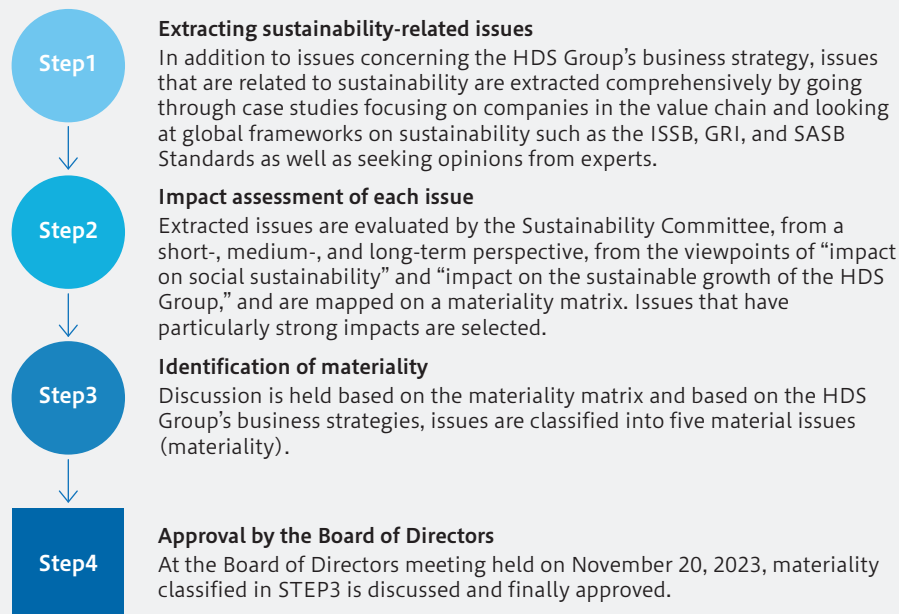
With the formulation of the Medium-term Management Plan for fiscal 2024–2026, the Sustainability Committee reviewed materiality, and identified five new materiality following the discussion at the Board of Directors meeting held on November 20, 2023.

The newly identified five material issues (materiality) are positioned as priority issues to be addressed to realize our long-term vision of becoming the best provider of total motion control in harmony with the future, and form the basis for formulating the Medium-term Management Plan for fiscal 2024–2026.

We have linked these material issues to annual management programs of all sections (concrete action plans and objectives for each department) with the aim of embedding them into our business activities for implementation. Progress is reviewed semiannually during the President’s management reviews.

Process of extraction and identification of materiality

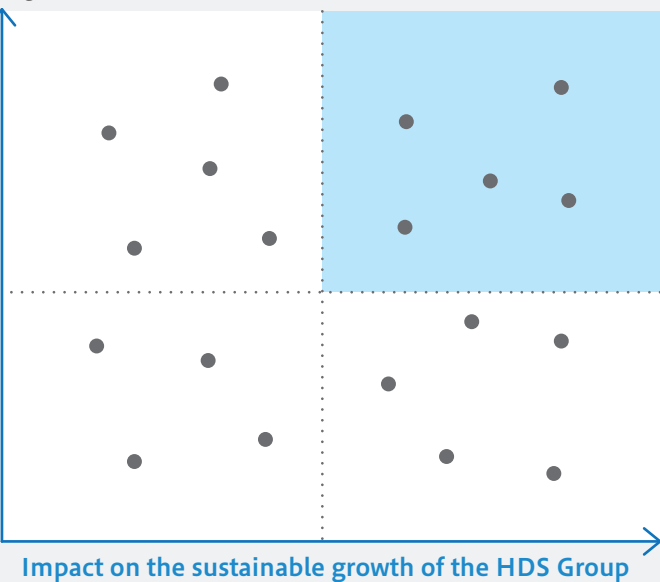
Toward the realization of a sustainable society and improvement of corporate value, we have identified material issues (materiality) through the following process, led by the Sustainability Committee. The Sustainability Committee is chaired by President and CEO and its members consist of Executive Directors.



Materiality Matrix

Very strong

Impact on social sustainability



Very strong

Materiality to Achieve Aspirations

Human capital, as stated in “maximize the value of human capital,” is the most important management capital in corporate activities, and is the source of all other management capital (manufacturing capital, intellectual capital, social capital, financial capital, and natural capital). In our Management Philosophy, we set “respect for the individual” as the first item of the priority issues. We are working to maximize the value of human capital including fostering a corporate culture that encourages employees to take on the challenge without fear of failure, creation of a rewarding workplace, and enhancement of personnel systems and capacity development.

“Achieve QCDS that goes beyond customer expectations” is a key issue to achieve sustainable growth of all businesses with an emphasis on

profitability, which is the core of our Medium-term Management Plan. In addition to Quality (Q), Costs (C), Delivery (D), and Service (S), we are making company-wide efforts to improve another Speed (S).

“Taking on the challenge of developing new technologies and skills that coordinate with changes in the environment” is an essential element to achieve our mission of “to contribute to innovation in the society by our motion control technology,” and it is becoming even more important in this era of rapid technological innovation and market change. We have also launched an environmentally conscious design project to develop products that help reduce our customers’ environmental impact.

“Contribute to a sustainable society through our corporate activities” is an essential initiative to enhance global, social, and the HDS Group’s sustainability together. We will strengthen our sustainability initiatives, aiming to reduce environmental impacts including those related to climate change and to achieve harmony with all stakeholders, including the global environment and our employees.

We are working on the “establishment of a management foundation in harmony with the times” with the aim of enhancing the sustainability of our financial base, governance and management system that are pivotal for realizing these material issues (materiality).

Materiality of the HDS Group

Materiality	Key measures	KPI			
		Indicators	Medium-term targets	Long-term targets FY2050	Results FY2024
 Maximize the value of human capital	- Strengthen professional development - Establish a personnel system that properly recognizes challenges - Increase employee engagement	Number of female managers	FY2027: 5	—	3
		Ratio of males who took childcare leave	FY2027: 90%	100%	85.7%
		Ratio of employees who took paid annual leave	FY2027: 80%	100%	81.1%
 Achieve QCDS that goes beyond customer expectations	- Strengthen the quality management system - Respond with a focus on speed - Strengthen supply chain management - Enhance responsiveness to order fluctuations	Sustainable procurement agreement rate (agreements)	—	100%	60%
		Supplier SAQ response rate	—	100% (all suppliers)	100% (important suppliers)
 Take on the challenge of developing new technologies and skills that coordinate with changes in the environment	- Develop products that promote the reduction of customers’ environmental burden - Create new technologies and methods	Market introduction of products that reduce environmental burden			
 Contribute to creating a sustainable society through corporate activities	- Reduce environmental burden across product life cycles - Address climate change - Reduce waste - Conduct community contribution activities	Reduction of GHG emissions	2030: Reduce scope 1 & 2 emissions by 30% compared with FY2022	Reach net-zero emissions for scope 1, 2, and 3	10,670 t-CO ₂ (Down by 13% compared with FY2022)
		Share of renewable electricity	—	100%	28%
 Establish a management foundation in harmony with the times	- Enhance corporate governance - Respond to business and human rights - Strengthen cybersecurity - Establish and reinforce a risk management framework	Principles of the Corporate Governance Code not implemented	FY2026: 0	0	1
		Implementation scope of human rights due diligence	FY2027: 85% (important suppliers)	100% (important suppliers)	—
		Percentage of female directors	FY2030: 30%	—	10%
		Number of information security incidents	FY2030: 0	0	0

Past Medium-Term Management Plans

	Medium-Term Management Plan (FY2012-FY2014)	Medium-Term Management Plan (FY2015-FY2017)	Medium-Term Management Plan (FY2018-FY2020)
Management Policy	- Position quality and safety as the foundation of business operations - Reflect needs of the market (customers) in product development and expand sale of new products - Become a group that faces the needs of the market (customers) head-on and responds accordingly - Bolster business of all major products	- Aim for a business foundation supported by the three product groups - Reinforce the competitiveness and business foundation of the three main product groups - Develop the Asian market and create a business foundation	- Significantly raise global production capacity - Raise capabilities of group companies to strengthen all-around abilities - Increase customer satisfaction by raising QCDS capabilities - Strengthen management foundation to support future growth - Lay groundwork for growth in the future
Business Strategy	- Continuously upgrade technologies and skills (strengthen core technologies) - Enhance product appeal with technologies and skills (expand product variation) - Raise competitiveness of actuators - Implement sales expansion strategy in the Asian market	- Find new applications for HarmonicDrive® Speed Reducers and launch new products in the market - Actively launch new mechatronics products - Capture overseas markets for precision planetary speed reducers - Actively expand sales in the Asian market - Improve organizational strength and develop human resources	- Raise production capacity and achieve improvements in productivity - Carry out greater investment in the main production bases and bolster comprehensive capabilities - Normalize and reduce production lead times, launch new products, and strengthen the support system for technology proposal capability - Secure and develop human resources, utilize IT, promote management that takes ESG into account
Achievements and Challenges	Net sales for industrial robots showed significant growth, and net sales for Asia rapidly increased roughly three-fold over the three-year period. Results fell slightly short of numerical targets, but net sales, operating income, and operating income to net sales ratio all reached all-time highs, with operating income to net sales ratio achieving 27.2%. Also, ROE stood at 14.7%.	Net sales and operating income have cleared numerical targets by a wide margin and set new records. A rapid growth in demand globally for industrial robots and the conversion of a German affiliate company into a subsidiary were contributing factors. However, the operating income to net sales ratio figure ended short of the plan. This was mainly attributable to the fact that against a three-year plan for aggregate capital investment of ¥10 billion, the actual figure reached ¥17.6 billion, and the burden of depreciation and amortization expanded from the planned ¥6 billion to ¥9.1 billion. Issues remained with regard to production capacity and stable supply.	In steadily implementing the business strategy, cutbacks in capital investment worldwide for manufacturing industry due to factors such as US-China trade friction, in addition to declining advance orders as a result, and further, a sharp decline in capital investment with the global spread of COVID-19 became evident, resulting in considerably underperforming against numerical targets. While keeping the capital investment plan under restraint, the groundwork for growth looking toward 2030- 2050 was being firmly laid.

• Medium-Term Management Plan

	FY2014 Management targets	FY2014 Results	FY2017 Management targets	FY2017 Results	FY2020 Management targets	FY2020 Results
Net sales	¥26.0 billion	¥25.9 billion	¥35.0 billion	¥54.3 billion	¥100.0 billion	¥37.0 billion
Operating income	¥7.5 billion	¥7.0 billion	¥9.5 billion	¥12.5 billion	¥26.0 billion	¥0.8 billion
Operating income to net sales ratio	28.8%	27.2%	27.1%	23.2%	26.0%	2.3%
Dividend payout ratio and dividends per share	—	27.2% (¥29/share)	—	31.5% (¥26/share)	—	290.6% (¥20/share)
Capital investment (3-year total)	—	¥5.1 billion	¥10.0 billion	¥17.6 billion	¥71.0 billion	¥33.7 billion
Depreciation and amortization (3-year total)	—	¥3.5 billion	¥6.0 billion	¥9.1 billion	¥25.5 billion	¥21.6 billion
R&D expenditure (3-year total)	—	¥3.6 billion	¥4.8 billion	¥4.9 billion	¥9.4 billion	¥7.1 billion

Past Medium-Term Management Plans

Previous Medium-Term Management Plan (FY2021-FY2023)

Management Policy	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	Basic Policy 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 management foundation that meets the demands of the times (4) Strengthen coordination and maximize synergies with overseas group companies and institutions (5) Create new standards that define the next 50 years through outside-the-box thinking	
Initiatives implemented and their results	investment in property - Increased facility's capacity at the Ariake Factory (40,000 units for industrial machines and 30,000 units for automobiles) ➡ Productivity per worker is now more than twice that of the conventional line - Promoted DX in the factory investment in human resources - Improved operations with “waste elimination” as the keyword - Promoted multi-skilling of workers - Further improved workers' skills	Increase our capabilities to respond to our customers' issues - Discover new needs - Absorb insights of different industries, advisers, and outside research institutions - Develop new products applying the latest light-weighting technologies and methods - Develop HarmonicDrive® with built-in torque sensor - Adopt local content - Maintain and improve “universal quality”	
Operating results	We set numerical targets such as net sales of ¥70.0 billion, operating profit of ¥15.0 billion (operating profit to net sales ratio of 20% or more), ROE of 10% or more, equity ratio of 70% or more, and dividend payout ratio of 30% or more for FY2023, the final fiscal year. Regarding financial results for FY2022, net sales reached ¥71.5 billion, exceeding the numerical target, driven by the emergence of post-COVID-19 pent-up demand. However, operating profit was ¥10.2 billion, operating profit to net sales ratio was 14.3%, and ROE was 7.5%, against the backdrop of more aggressive capital and R&D investments than our plan, as well as securing human resources and strengthening investment in human resources. Regarding financial results for FY2023, net sales were ¥55.7 billion and operating profit was ¥0.1 billion (operating profit to net sales ratio was 0.2%), against the backdrop of deteriorating external environment such as the slowdown of the Chinese economy, sluggish capital investment in semiconductors, and prolonged inventory adjustment at industrial robots manufacturers. In addition, we recorded impairment loss on intangible assets (goodwill, customer related assets, and technical assets) of Harmonic Drive SE, our consolidated subsidiary, resulting in ROE of -27.1%. Equity ratio as of the end of FY2023 was 66.6%, slightly below the numerical target but stable at a high level. As for shareholder returns, we paid dividends that exceeded our commitment to a dividend payout ratio.		Expected investment results in fiscal 2024 and beyond - Improvement in abilities to meet delivery deadlines - Productivity improvement (Productivity per worker to be more than three times that of the conventional production line at the Ariake Factory) - Sustainable supply chain system and quality maintenance during production expansion - Enhancing the sales contribution of new products and new applications - Increase cost competitiveness

• Previous Medium-Term Management Plan

	FY2021 Results	FY2022 Results	FY2023 Results	FY2023 (Final Year of the Medium-Term Management Plan) Management Targets	
Net sales	¥57.0 billion	¥71.5 billion	¥55.7 billion	¥70.0 billion, 24% CAGR	Tie market expansion to our group's growth
Operating profit	¥8.7 billion	¥10.2 billion	¥0.1 billion	¥15.0 billion	Improve profitability by providing high value products
Operating profit to net sales ratio	15.3%	14.3%	0.2%	20+%	Improve profitability by providing high value products
ROE	6.6%	7.5%	-27.1%	10+%	ROE > Cost of equity
Equity ratio	69.0%	67.4%	66.6%	70+%	Build a financial base that balances growth and stability
Dividend payout ratio	30.4% (¥21/share)	35.1% (¥28/share)	-% (¥20/share)	30+%	Maintain stable dividends
Capital investment	¥5.6 billion	¥9.2 billion	¥4.9 billion	¥15.0 billion (3-year total)	Lay out capital investments to support our group's growth
R&D expenditure	¥3.0 billion	¥3.2 billion	¥3.6 billion	¥9.0 billion (3-year total)	Create new technologies and skills

Overview of the Medium-Term Management Plan for Fiscal 2024–2026

Basic policy

Take on the challenge of “value creation and transformation”

The basic policy of the Medium-Term Management Plan, which concludes in FY2026, is “Unleash the Brain Power of Individuals and Take on the Challenge of Value Creation and Transformation.” All employees at the HDS Group will embrace two challenges: “value creation” to create new value and respond to technological innovations and new applications, and “transformation” to change conventional structures, common sense, and culture for the future. To realize this vision, we will work on three issues aligned with our materiality, priority issues to be addressed, and strive to achieve both the management targets of the Medium-Term Management Plan and our aspirations for FY2030.

What do we aim to achieve?

Sustainable growth of all businesses with an emphasis on profitability

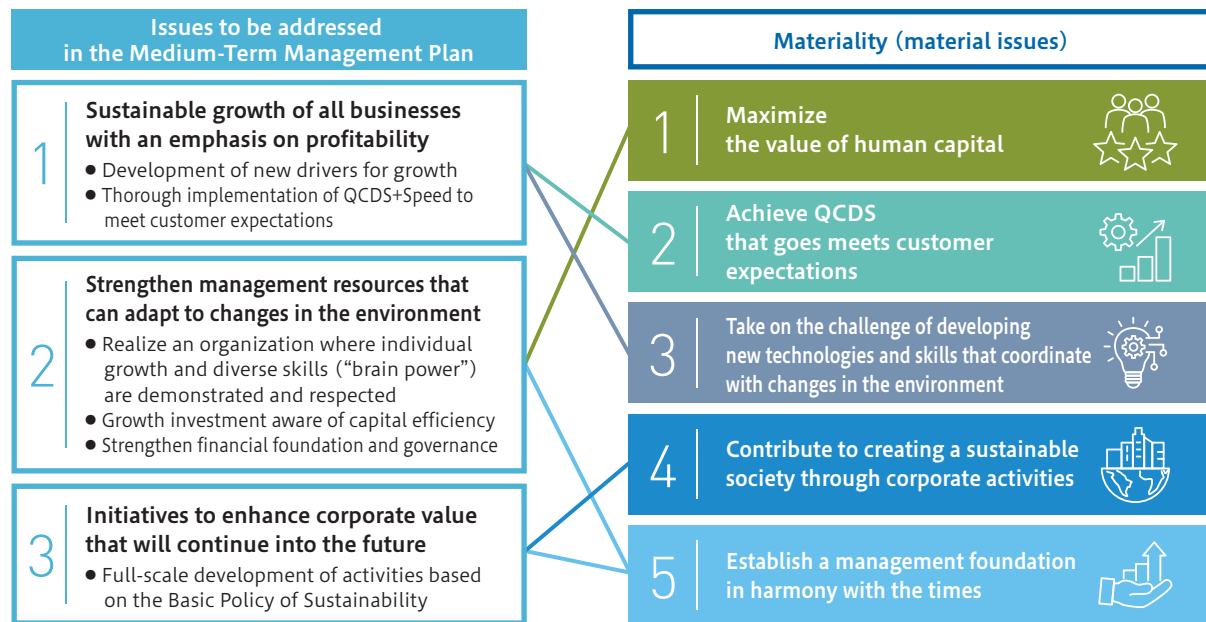
What is necessary to achieve this?

Strengthen management resources (people, things, money, information) that can adapt to changes in the environment

Sustainability

Initiatives to enhance corporate value that will continue into the future

Solving issues to be addressed under the Medium-Term Management Plan to achieve the long-term vision for 2030



Management targets

Items		FY2024 Results	FY2025 Forecast	FY2026 Management targets		Aspirations (FY2030)
Growth	Net sales	¥55.6 billion	¥57.0 billion	¥90.0 billion	Tie market expansion to the HDS Group's growth	¥100.0+ billion
Profitability	Operating profit to net sales ratio	0.0%	2.6%	15–20%	Provide high value-added products and drive cost transformation	20+%
	EBITDA margin	14.4%	15.4%	25–30%		30+%
Efficiency	ROE	4.4%	–	10+%	> Cost of equity	10+%
	ROIC	0.0%	–	10+%		10+%
Stability	Equity ratio	69.5%	–	70+%	Build a financial base that balances growth and stability	70+%
Shareholder returns	Dividend payout ratio	54.7%	145.7%	30+%	Dividend increase due to financial results expansion	30+%
Capital investment	Capital investment	¥3.7 billion	¥6.8 billion	¥27.5 billion (3-year total)	Lay out capital investments to support the HDS Group's growth	–
Development technologies	R&D expenditure	¥3.7 billion	¥4.0 billion	¥12.3 billion (3-year total)	Create new technologies and skills	–

Overview of the Medium-Term Management Plan for Fiscal 2024–2026

Progress of the Medium-Term Management Plan for Fiscal 2024–2026 (FY2024)

■ Priority measures to realize sustainable growth with an emphasis on profitability

Net Sales: consolidated net sales for FY2024 were ¥55.6 billion, falling short of the initial forecast of ¥58.5 billion and decreasing 0.3% year on year. Despite a strong recovery in orders during the second half of the fiscal year, performance was affected by restrained capital investment and revisions in the automotive industry, as well as prolonged inventory adjustments among semiconductor manufacturing equipment manufacturers. For FY2025, net sales are projected to increase 2.5% year on year to ¥57.0 billion.

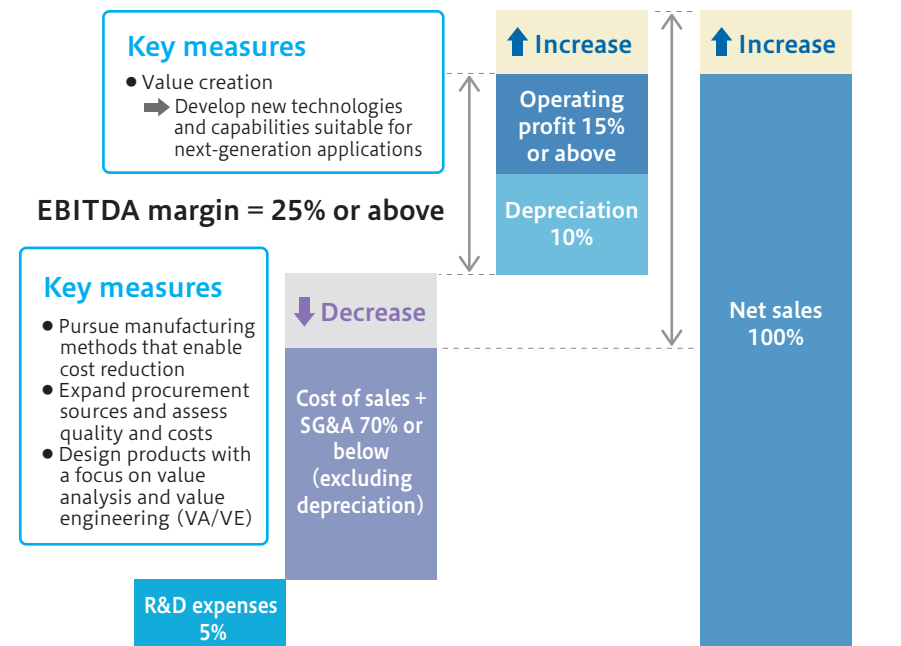
Profitability: operating profit for FY2024 returned to a modest surplus, and the EBITDA margin reached 14.4% after accounting for ¥8.0 billion in depreciation and amortization. In addition to revising sales prices, we steadily advanced key initiatives, including a company-wide cost innovation project that contributed ¥0.3 billion in profit and is expected to generate ¥1.0 billion in FY2025. However, profitability remained subdued due to a ¥1.9 billion decline in operating profit resulting from lower sales. Operating profit for FY2025 is projected to be ¥1.5 billion, representing an operating profit margin of 2.6%.

■ Net sales for new applications will drive growth

For existing applications: demand for industrial robots declined due to a shift from electric vehicles back to internal combustion engine vehicles, primarily hybrid vehicles, as well as the impact of U.S. tariffs, which prompted the automotive industry to reassess or delay capital investment. However, inventory adjustments at robot manufacturers have largely been completed, and a recovery in orders is expected as end-user demand gradually rebounds.

For new applications: in FY2024, the HDS Group's market share in China increased to 12.1%, up 2.8 percentage points year on year, driven by growing adoption among mid-tier Chinese robot manufacturers. In the emerging and globally watched field of physical AI, several companies including startups have entered the mass production phase, and the HDS Group has secured supply commitments for mass production. We have also begun collaborations with major corporations exploring entry into the physical AI sector.

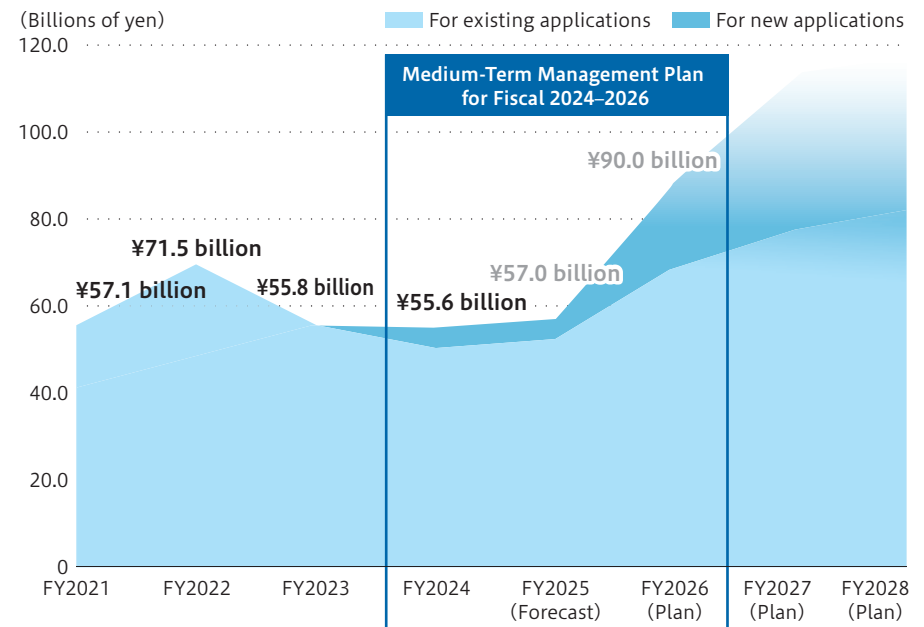
● Profitability target for FY2026 (Final Year of the Medium-Term Management Plan)



● Net sales target of the Medium-Term Management Plan for fiscal 2024–2026

Consolidated net sales

(Billions of yen)



Message from the Chief Financial Officer



Representative Director
Senior Managing Executive Officer
Chief Financial Officer
Kazutoshi Kamijoh

We will steer our financial and capital strategies to meet the expectations of our shareholders and investors as we effectively capture medium- to long-term growth opportunities presented by physical AI systems and other areas while strengthening our risk management.

Key Points

- The first year of the Medium-term Management Plan (fiscal 2024–2026) turned out to be challenging, as orders came in below expectations.
- Although cash flows provided by operating activities remained limited, the Company's financial position improved as we reduced cross-held shares and curbed cash outflows from investing activities.
- We remained flexible in our investment decisions, ensuring that we did not miss growth opportunities presented by physical AI systems and other emerging applications.

The role of the Chief Financial Officer (CFO) of the HDS Group

The HDS Group's performance is greatly affected by global capital investment trends. Thus, it is relatively volatile, making it difficult to determine appropriate production capacity and decide on capital investments. Responding to short-term demand fluctuations is especially difficult, but it is my role and responsibility as CFO to choose and implement the optimal financing method, which includes sources other than cash flows from operating activities, to secure the funds needed to make capital investments at the right timing based on medium- to long-term demand forecasting.

As a listed company, we consider the market capitalization of our stock (¥299.8 billion as of the end of fiscal 2024) an important indicator of corporate value. Theoretically, the corporate value is the future cash flows discounted to their present value. However, we believe that the high evaluation of the price-to-book ratio (PBR) reflects expectations of future stock price growth, even though fiscal 2025 performance is forecasted to remain low. In this case, I also serve the important role of correctly understanding the expectations of shareholders and investors, disclosing information, and presenting our growth story accordingly.

Total shareholder return (TSR) for fiscal 2024 and dialogue and engagement with shareholders and investors

As CFO of the Company, I regret to report that we were unable to increase TSR for fiscal 2024 through higher capital gains, which shareholders and investors expect. Regarding dividends, a form of income gain, our basic policy is to pay

dividends aligned with earnings performance, with a target dividend payout ratio of 30%. However, for the sake of stable dividend payments, we have paid an annual dividend of ¥20 per share even when short-term profit generation was limited. We have consistently taken comprehensive measures to enhance shareholder returns, including the decision to repurchase treasury shares totaling ¥1.2 billion, using part of the funds obtained from the sale of cross-held shares.

We incorporate feedback from shareholders and investors and demand forecasts into our business plans. Capital investment in physical AI systems warrants particular attention. Our policy here is to proceed in stages, carefully assessing the opportunities and risks of this business and adhering to the schedules requested by customers while maintaining close oversight of management risks. In fact, in fiscal 2024, we made a major revision to our investments in response to a customer's change in production plan, deciding to suspend or postpone certain planned production ramp-ups. Through dialogue with shareholders and investors, we provide careful explanations of these situations to gain their understanding.

Fiscal 2024 performance in review and progress in the Medium-term Management Plan

Looking back on our performance in fiscal 2024, we reported rather weak results: net sales of ¥55.6 billion and operating profit of ¥0.0 billion, a sharp contrast with the start-of-the-year performance forecasts of ¥58.5 billion and ¥2.7 billion,

Message from the Chief Financial Officer

respectively. When we revised our interim full-year performance forecast, we even anticipated the possibility of posting a consolidated operating loss. However, we managed to report a modest operating profit owing to the Group's collective effort. Notably, we successfully reversed the operating loss in the first half and returned to profitability on a monthly and quarterly basis in the second half, putting our income back on a recovery track. This has a remarkable bearing on how we view our fiscal 2025 performance outlook.

Currently, our break-even sales are approximately ¥13.5 billion on a quarterly basis. However, in the second half of fiscal 2024, we surpassed this threshold in the third and fourth quarters, achieving profitability for the period. However, the absolute amount of operating profit remains insufficient. Therefore, it is premature to conclude that our profitability has fully recovered, at least numerically, as certain challenges still need to be addressed.

If I break down our operating profit and loss in fiscal 2024 by region, our business in Japan (the parent company and subsidiaries in Japan combined) remained in the red but showed a clear improvement trend compared with the remarkable deficit recorded in fiscal 2023, following a recovery path toward returning to profitability in fiscal 2025. This upward trajectory is primarily attributable to a steady increase in orders and the resultant rise in factory utilization rates in Japan, as the issue of excess inventory among customers and us has been gradually resolved. Cost reduction measures and price revisions also contributed somewhat to the recovery. However, the situation

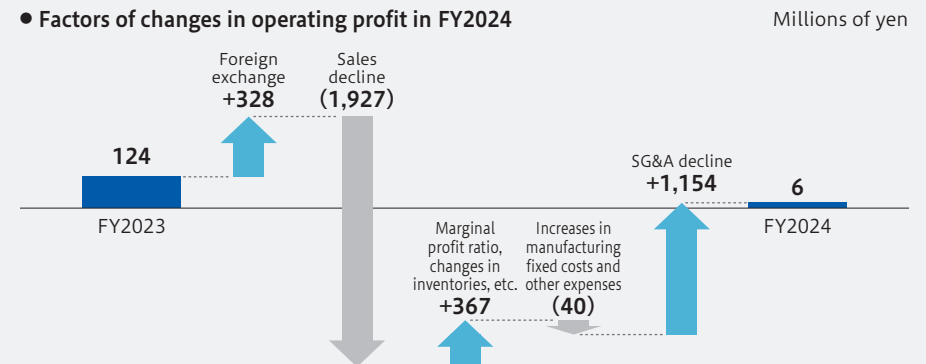
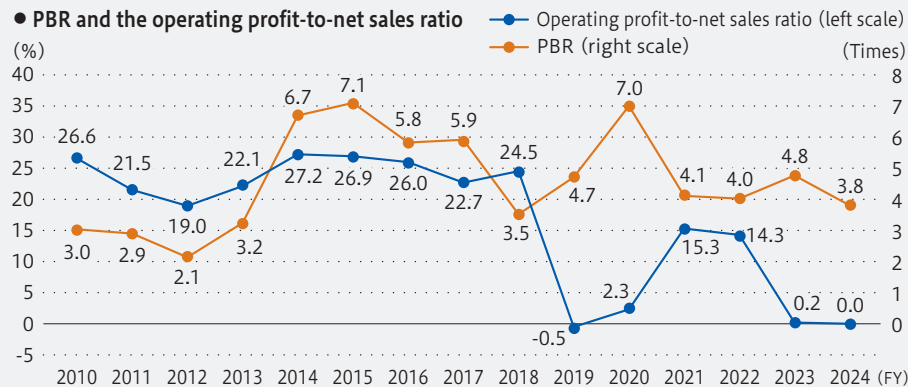
was mixed between positives and negatives, with the latter exemplified by the rise in labor and materials costs. In China, our sales grew as more local industrial robot manufacturers seeking to develop high-performance, highly durable products chose our solutions, resulting in improved operating profitability. Conversely, we faced difficulties in Germany and the U.S., which had driven operating profit in fiscal 2023. In fiscal 2024, our German subsidiary experienced lower profitability due to reduced demand for its main applications, industrial robots and semiconductor manufacturing equipment, and also due to the stagnation of the European economy and a decrease in small projects, which tend to be more profitable. In the U.S., sales and profits declined as the demand for advanced medical and semiconductor manufacturing equipment softened.

On the balance sheet, net assets decreased because of impairment losses on goodwill and other intangible assets related to the acquisition of the German subsidiary toward the end of fiscal 2023 (¥28.1 billion). However, in fiscal 2024, partly reflecting reduced debt following early repayment of long-term borrowings, equity ratio rose from 66.6% to 69.5%. Recording such a large amount of impairment losses was a difficult decision, but thanks to this and other measures, our total assets have declined by over ¥40.0 billion over the past two years, resulting in a healthier balance sheet. Furthermore, we sold a considerable amount of cross-held shares to enhance corporate governance effectiveness, thereby improving our capital efficiency. Because of this move, only a small portion of the cross-held shares now remain.

Progress in key performance indicators (KPIs) in the first year of the Medium-term Management Plan

Regarding the KPIs outlined in the Medium-term Management Plan for fiscal 2024–2026, those related to scale and profitability, such as net sales, the operating profit to net sales ratio, and EBITDA margin, fell short of the start-of-the-year plans, marking a challenging start for the first year (p. 29). For capital efficiency indicators, ROE and ROIC stood at 4.4% and 0.0%, respectively, both falling short of our capital cost of approximately 8%. Although short-term income shows signs of improvement, we believe that enhancing capital efficiency, particularly in efforts to restore earning power, remains crucial.

On the financial front, as I mentioned earlier, the impairment write-down of ¥28.1 billion recorded in fiscal 2023 in association with the German subsidiary helped reduce subsequent amortization of intangible assets and lower fixed expenses. Similarly, we recorded approximately ¥1.1 billion of fixed asset impairments associated with a subsidiary in Japan (Harmonic Precision Inc.) at the end of fiscal 2024. These measures align with our financial policy of enhancing the soundness and transparency of the Group's balance sheet by appropriately reflecting financial risks that may arise when earnings deteriorate in our financial statements. Turning to current assets, our inventories increased around 2023, when semiconductor procurement risk was being keenly felt, and remain at a high level. We are addressing this using inventory while reducing it in parallel. We will continue this initiative into fiscal 2025.



Message from the Chief Financial Officer

Progress in cash allocation and enhancement of capital efficiency

In fiscal 2024, cash flows from operating activities amounted to ¥7.5 billion, ¥2.0 billion below the target of the Medium-term Management Plan. This shortfall is primarily attributable to sluggish operating profit, which undershot the Plan by ¥2.7 billion. More specifically, demand recovery in certain applications, such as industrial robots and semiconductor manufacturing equipment, was slower than that originally assumed by the Plan. Meanwhile, we recorded an inflow of ¥8.3 billion from the disposal of cross-held shares. As part of our efforts to reduce total assets and curb interest expenses, a portion of these proceeds was allocated to financial activities, including the repayment of long-term borrowings.

Prudent risk management enabled us to keep cash outflows from investing activities below the original budget.

We were able to restrain payment for capital investments for fiscal 2024 to ¥3.76 billion, compared with the originally planned ¥12.0 billion. This is because our customer rescheduled their production plan for a large physical AI-related project, shifting all stages to later dates. In response, we postponed our own production ramp-up investment plan accordingly. To increase the production of new small, flat, and lightweight models, we allocated

approximately ¥10.0 billion for this investment project in fiscal 2024; however, we spent only approximately ¥1.0 billion, with the remaining funds carried over to fiscal 2026 and beyond. Meanwhile, we conducted digital transformation (DX)-related investments as planned. These included an ERP version upgrade aimed at strengthening the management foundation, and system investments to enable the real-time management of manufacturing processes. These foundational investments not only reinforce our management infrastructure but also represent key strategic initiatives designed to enhance capital efficiency over the long term.

This disciplined control of capital investment was not the result of hindsight but of our flexible and prudent approach to risk management. Working with machine tool manufacturers, one of our key partners, we keep them informed of shifting demand trends and ongoing discussions within the Company, so as to adopt flexible approaches to minimize the effects on both sides. Consequently, we were able to minimize the overall management risks, although the acquisition of certain equipment could not be avoided. We are projecting approximately ¥6.5 billion in capital investment for fiscal 2025. However, depending on the progress of individual projects, this figure may fluctuate considerably. Currently, the utilization rate of our flagship factory in Nagano Prefecture remains low at approximately 50%. As such, we plan to expand sales and

improve profitability by making full use of existing facilities. For the time being, capacity expansion investments will be limited to products that cannot be handled by existing facilities, new applications, or production lines with limited spare capacity.

Overall, our capital investment over the three years of the current Medium-term Management Plan is expected to total ¥17.0–18.0 billion, which is likely to fall short of the start-of-the-year plan by approximately ¥10.0 billion. However, we may resume large-scale investment should the demand for physical AI-related or other products increase sharply, as such demand is expected to support the Group's top-line growth over the medium to long term.

Regarding shareholder returns for fiscal 2024, in addition to paying a cash dividend of ¥20 per share, we executed a portion of the ¥1.2 billion shares using a portion of the proceeds from the disposal of cross-held shares. We allocated the remaining cash to debt repayment and capital efficiency initiatives, strengthening our financial position and reinforcing our commitment to disciplined capital allocation. Specifically, we reduced interest-bearing liabilities by approximately ¥2.0 billion, positioning ourselves to preserve our debt capacity to respond to potential future investment opportunities. Consequently, despite the difficult earnings environment in fiscal 2024, we were able to allocate cash with capital efficiency in mind, stabilizing our financial base

• First-year initiatives under the basic policy of the Medium-term Management Plan

1

Sustainable growth of all businesses with an emphasis on profitability

Development of new drivers for growth

- Built a stronger relationship with players in the physical AI-related market
- Expanded share in the Chinese market (9.3% in 2023 → 12.1% in 2024)
Source: 2024 China Precision Speed Reducer Market Analysis Report, MIR Co., Ltd.
Driven by sales to local robot manufacturers in China
- Launched partnerships to cocreate new technologies

Thorough implementation of QCDS+Speed to meet customer expectations

- Launched the company-wide cost innovation project
Improved fiscal 2024 operating profit by approximately ¥0.3 billion amid persistently high commodity prices and rising labor costs
- Expanded the scope of local assembly in China

2

Strengthened management resources

Greater IoT adoption at factories

- Enhanced operational efficiency due to the launch of the manufacturing execution system at the Ariake Factory
→ To be rolled out to other factories in fiscal 2025 and beyond (expected benefits: indirect human-hours to be reduced by approximately 16,000 h/year)

Efficient allocation of production bases

- Mechatronics product production operations fully transferred to the consolidated subsidiary, Harmonic Winbel Inc.

3

Initiatives to enhance corporate value that will continue into the future

Activities based on the Basic Policy of Sustainability

- Selected for the CDP Water Security A List
- Formulated the HDS Group Policies on Human Rights
- Conducted supplier risk assessments
- Reduced cross-held shares (approximately ¥8.3 billion)
- Established the voluntary Nomination and Remuneration Advisory Committee

Message from the Chief Financial Officer

while enhancing shareholder returns.

Changes in our earnings structure compared with the past

A comparison of the Group's current earnings structure between the present and past years shows that the break-even sales point has increased remarkably. This is primarily attributable to higher fixed costs, such as greater depreciation and amortization from capital investment, additional labor expenses from increased headcount and wage levels, and higher selling, general and administrative expenses including R&D expenses. In order for a development-oriented manufacturer like the Group to sustain business growth over the medium to long term and continue enhancing its corporate value, it is essential to enhance R&D activities while maintaining a solid financial base and a talent pool that support such activities. As R&D and product development become increasingly complex, the R&D expenses-to-net sales ratio amounted to 6.8% for fiscal 2024. Successful R&D requires more than financial investment; it depends on human resources capable of driving research projects to completion and translating their outcomes into business growth. I am delighted to note that the R&D section now has more younger researchers and has well supported their development. We intend to continue allocating the necessary management resources to stimulate

R&D activities, the lifeline of the Group.

Enhancing profitability through top-line growth while maintaining a high marginal profit ratio

The Group's marginal profit ratio has historically been approximately 60%. In recent years, it has shown a gradual downward trend due to inflation, mainly in materials and outsourcing costs, but there have been no remarkable fluctuations.

Although further raising the marginal profit ratio is difficult, in fiscal 2024, we successfully implemented our first price increase in roughly 15 years in the Japanese market, supported by our sales team's efforts to gain customers' understanding of recent increases in our costs. Customer responses varied, and in some cases, we faced difficult negotiations over the proposed price increases. However, I believe that their persistence ultimately helped us secure the understanding of customers.

At this point, we have no plans to increase prices in the near term. However, customers are increasingly prepared to accept cost pass-through as society becomes more aware of inflation. We will make appropriate decisions as we carefully assess the management environment and market trends.

We will strive to achieve top-line growth by expanding existing applications and identifying new ones as we maintain the current level of the marginal profit ratio.

Simultaneously, we will leverage the gearing effect of earnings power by minimizing increases in fixed expenses and making efficient use of existing equipment. Through these efforts, we aim to achieve by fiscal 2030 net sales of ¥100.0 billion, an operating profit-to-net sales ratio of 20% or higher, an EBITDA margin of 30% or more, and both ROE and ROIC of 10% or higher (approximately 8% of cost of equity). If I were to share my personal projection on the balance sheet management at the end of fiscal 2030, although retained earnings may increase, we aim to raise dividend payments proportionally and target net assets of approximately ¥120.0 billion through treasury share repurchases and other measures. Regarding interest-bearing liabilities, we will continue scheduled payments of ¥2.0 billion per year while planning new borrowings of ¥10.0 billion to bring the total to approximately ¥15.0 billion. We intend to manage our financial capital policy with a target cash equivalent balance of roughly ¥25.0 billion, equivalent to approximately three months of sales.

As a group of component manufacturers, we plan to diversify our customer and application portfolios by broadening our application range to reduce our cost of equity (WACC). This approach balances growth with the mitigation of performance fluctuations, helping us limit short-term volatility in our share price and contributing to a lower beta value.

Cash allocation in the Medium-term Management Plan

- FY2026 EBITDA rate
25–30%
 - Decrease in inventory turnover (months)
- FY2024: Cash flows from operating activities:
¥7.5 billion
Disposal of cross-held shares:
¥8.3 billion

Cash flows from operating activities
¥43.0 billion
Cash inflow

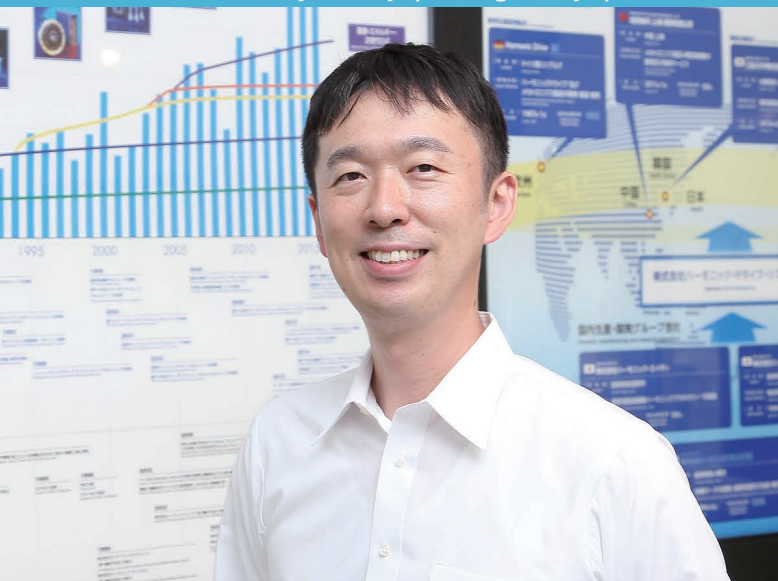
Capital investment
¥27.5 billion
Shareholder returns
¥7.0 billion
Cash equivalent – interest-bearing liabilities
¥8.5 billion
Cash outflow

- Compact/flat speed reducers
¥10.0 billion (Ariake Factory)
 - Software-related enhancement of the Matsumoto Factory
¥2.0 billion
- FY2024 Capital investment: **¥5.3 billion**
- Dividend payout ratio: **30%**
FY2024 Shareholder returns: **¥2.3 billion**
- Interest-bearing liabilities: approximately **¥3.0 billion**
 - Cash equivalent: **+¥5.5 billion**
- Cash equivalent, interest-bearing liabilities, and others: **¥8.2 billion**



Initiatives for Management that is Conscious of Cost of Capital and Stock Price

—Our long-term goal is to achieve this objective by spreading factory-specific ROIC.



Manager
Consolidated Accounting and Tax Group
Finance Accounting, Finance, and Tax Division
Takuro Yoshida

ROIC

(Return on invested capital)

Formula: Net operating profit after tax/Invested capital

An indicator that shows how efficiently a company uses the capital invested in its business activities to generate profits

ROIC tree

A visual presentation of the underlying drivers of ROIC. By breaking the underlying drivers of ROIC into multiple layers, this framework helps identify opportunities for improving business operations and analyzing the efficiency of management resources.

The divisional policy of the finance accounting section mentions “consideration of management indicators that are conscious of capital cost” as one of the key priority issues. In line with this policy, I am working to determine a set of management indicators that use ROIC. A KPI of our long-term vision is “ROIC of 10% or higher on a consolidated basis.” To make this a reality, we need to begin by calculating the ROIC for each Group company and then cascade it to each factory and ultimately to each product category. Each factory within the Group is responsible for different product categories, and their organizational structures vary accordingly. By calculating ROIC for each factory, we aim to develop a clearer understanding of challenges and strengths for each product category and factory.

Challenges of factory-specific ROIC and related initiatives

To accomplish major objectives, each underlying driver must be carefully scrutinized and visualized. In other words, a clear understanding of how much profit must be generated to recoup the assets held by and the capital invested in each factory is required. At present, we are building a foundation that will serve as a reliable “yardstick” for this goal. We understand that shareholders and investors expect us to raise ROIC as quickly as possible, but for now, our priority is to solidify the cornerstone. Analysis data for each factory must be both detailed and

accurate to improve the accuracy of investment decisions.

However, we have yet to generate sufficiently accurate data on each individual factory. Systematically compiling financial information from the investment efficiency perspective is a new challenge for the Company.

The finance accounting section’s project for developing management indicators that use ROIC has been in full swing since the beginning of fiscal 2024. We are currently engaged in repeated discussions to quantify and prioritize drivers, and we are preparing to announce concrete numerical targets. It is safe to say that we now have a solid framework for calculating the ROIC for each company. The next key project theme is to accelerate factory-specific programs. To this end, we conduct analysis with the characteristics of each factory’s business in mind.

Multiple elements, such as inventory, turnover of trade receivables, and capital invested, affect ROIC; therefore, it requires a cross-sectional review. For example, if the time to collect trade receivables is long, we need to work with the sales section. If excess inventories are held, we need to speak with the procurement section. One element with the greatest effect is the amount of investment, and the critical question is whether it surpasses the 8% cost of capital (weighted average cost of capital, WACC). We will carefully consider the optimal size of investments to meet the



Initiatives for Management that is Conscious of Cost of Capital and Stock Price

expectations of shareholders and investors. Furthermore, we are developing a framework that anticipates not only profit and loss plans but also the recoupment of invested capital to ensure that ROIC consistently exceeds capital cost.

■ The goal of factory-specific ROIC management

Because no two factories share the same business characteristics, the ROIC that each should target naturally differs. For instance, the Ariake Factory has considerable invested capital as it has installed automated lines, but its utilization remains low due to weak orders. In contrast, the Hotaka Factory has more modest invested capital, as much of its production is performed manually, but its diverse product mix makes managing inventory turnover challenging. The Toyoshina Factory specializes in the production of precision planetary speed reducers and operates with a straightforward line configuration. The Komagane Factory is responsible for manufacturing high-value-added mechatronics products that deliver high profitability, but see a profit decline if output falls. Therefore, we decided not to set a uniform ROIC target. Instead, we aim to visualize ROIC for each factory according to its business characteristics so that everyone can align on the same improvement direction. This approach enables each factory and section to evaluate their activities through

the lens of ROIC by clarifying areas for improvement.

We do not assume the introduction of a new system for ROIC visualization. Rather, the finance accounting section is taking the lead in sorting and reorganizing the existing data. We are working to build a system that visualizes data more efficiently and effectively while using data accumulated in ERP systems and elsewhere. In the long run, we aim to create a workplace environment where employees naturally develop ROIC awareness through shared operation processes and training opportunities. Ultimately, we will incorporate ROIC into our monthly management processes through ROIC visualization and lay the groundwork for a system that enables management to quickly identify issues and make timely decisions at the monthly Business Process Innovation Meeting, which is attended by all section heads and above. Equally important is strengthening post-investment follow-up and monitoring. We aim to improve the accuracy of future investment decisions by enabling the continuous monitoring of ROIC at the factory and business levels.

■ Spreading the metric in-house and enhancing corporate value

Introducing ROIC is not simply about adding a new metric. Rather, it represents a shift in management perspective, from

“maximizing sales and profits” to “maximizing the efficient use of limited capital.” Although ROIC may appear complex at first glance, breaking down its underlying drivers into clear, easy-to-understand components allows the concept to spread across the organization. All of its drivers, such as inventory turnover, collection time for trade receivables, and fixed-asset turnover, are closely linked to daily operations. If every employee pays attention to these familiar indicators and reflects on their day-to-day actions, ROIC will naturally improve. Take the management of consumables at factories as an example. If teams place excess orders simply because they have a surplus budget, management becomes cumbersome and storage space becomes tight. This results in lower ROIC. In contrast, if orders are placed in the right quantities, expenses decrease and the Company’s assets are used more efficiently. If we continue making these incremental improvements, we can enhance the ROIC. In the future, we aim to foster a corporate culture in which employees and management alike share a common question, “Is this factory generating returns commensurate with the investment?” using ROIC as a common yardstick and a basis for discussion. Through these initiatives, we seek to embed a management mindset that is conscious of cost of capital into the Company, thereby contributing to the sustainable enhancement of corporate value.

● Framework of ROIC monthly management for each factory and goals (drafts under discussion)

Ariake Factory P37·P38

HarmonicDrive® speed reducers for automobiles and industrial machines (automated production lines)



Designing profitability-oriented indicators



Improving capital investment turnover

Hotaka Factory P37·P38

HarmonicDrive® speed reducers for industrial machines



Optimizing inventory turnover



Shift to high-value-added products

Komagane Factory P41

Improving the inventory turnover of mechatronics products



Shortening the cycle between development and mass production



Improving inventory turnover

Toyoshina Factory P40

Precision planetary speed reducers



Reducing fixed expenses and enhancing utilization



Optimizing the product mix

Matsumoto Factory P39

Cross roller bearings



Improving productivity



Improving capital investment turnover

Goal

Improving the accuracy of future investment decisions

Message from the Officer in Charge of Production Technology



Executive Officer
General Manager of
Production Technology Division
Hiroki Hanaoka

Through redefining manufacturing, we will pursue next-generation manufacturing and optimize our production equipment while building a next-generation production model that meets global standards.

We will redefine manufacturing through our company-wide cost innovation project.

We will fundamentally reform the conventional manufacturing approach through our company-wide cost innovation project. We are pursuing the possibility of deploying high-precision, space-saving, and low-cost machines by breaking away from the conventional preconceptions about equipment. For example, in the gear cutting field, we have an ongoing joint development project with a small but technologically advanced partner to select equipment that meets our new price and footprint targets while maintaining comparable precision with our existing machines. On the material side, we have partnered with quality assurance and development sections to start re-assessing raw materials that were previously deemed unchangeable. In addition, we are working to achieve “non-cutting manufacturing” by using thinner-walled forged materials and combining them with lamination technologies.

While orders were stagnant, we began to more effectively utilize our existing equipment.

Since fiscal 2024 was the first year of our company-wide cost innovation project, our quantitative progress was limited. Some of the newly deployed equipment remained underutilized or unused due to declines in orders and postponements of special projects. Given this situation, we are globally optimizing the deployment of our existing machines while minimizing unnecessary capital investments. Specifically, we are updating the specifications of our existing machines for our promising new mobility project while adapting them for Harmonic AD, a precision planetary speed reducer company. In anticipation of the next wave of demand recovery, we are seeking to enhance our profitability by effectively utilizing our fixed assets and improving the utilization rate.

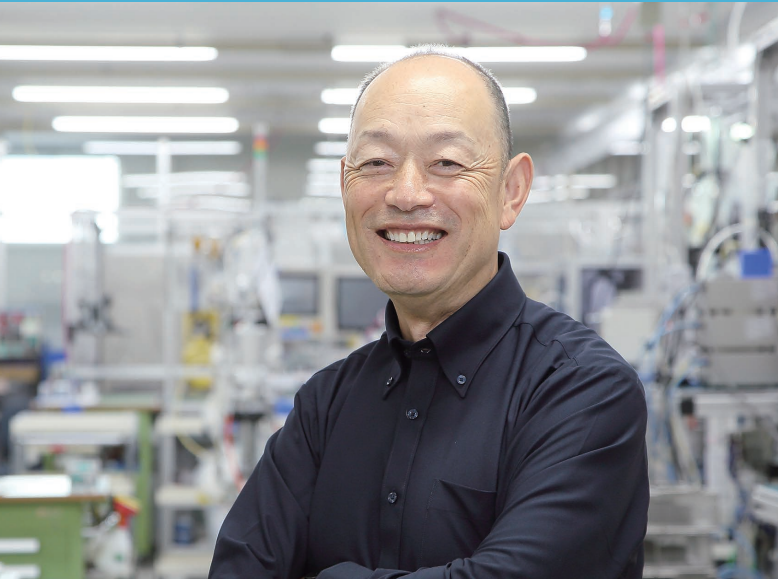
We will solve material issues and execute aggressive collaboration strategies.

We are also steadily making progress in addressing material issues, including quantifying quality and quickly responding to measurement issues. Specifically, we are progressing in quantitatively evaluating triple tooth contact and digitizing/utilizing defect detection data, thereby enhancing quality. Regarding cost efficiency and market adaptivity, we are strategically expanding into the Chinese robotics market through a collaboration with a Chinese manufacturer. At the same time, we are carefully assessing Chinese products through performance and durability tests to determine whether or not to employ them. We aim to enhance our competitiveness while maintaining the premise of ensuring HDS Group quality standards even for lower-priced models.

Through global collaborations, we will take on the challenge of establishing the next-generation production model.

The automation rate, which is our current focus area, has been steadily improving. Year-over-year, we saw a modest increase of 1.2%, despite the low utilization rate. Breaking it down by the equipment automation level across processes, Level 1 (requiring manual loading/unloading) dropped 0.7%, and Level 2 (equipped with automatic loading/unloading capabilities) improved by 1.0%. While Level 3 (equipped with automatic loading/unloading and inspection capabilities) fell by 0.7%, Level 4 (interconnected equipment) improved by 1.0%, demonstrating a gradual shift toward more sophisticated automation levels overall. Note that our goal is not to fully automate all processes but to optimally automate them for each product and customer. Based on this flexible policy, we are organizing a global production engineering conference in Germany this November, where production technology staff from our three major hubs, Japan, Germany, and the U.S., will meet. We will continue building the next-generation production model by sharing global insights.

Message from the Officer in Charge of Production



Executive Officer
(In Charge of Production, Production Planning)
General Manager of First Production Division
Tsuyoshi Awaduhara

In addition to building customer trust, we aim to maximize our output during the next demand recovery period by enhancing productivity and making structural improvements to address product non-conformances led by production floor teams.

Driven by the production floor, we will further enhance our operational visibility by promoting digital transformation and automation efforts.

While the Ariake Factory has been completely automated ahead of other locations, the Hotaka Factory is gradually automating the operations through digital transformation in anticipation of fully implementing the manufacturing execution system (MES) in two years. Through collaboration with the ICT division, our manufacturing engineers have visualized about 30 production data items on the motion board and have successfully linked it with Facteye, an equipment utilization monitoring system, and XC Gate, which enables users to detect and analyze causes of product non-conformances. This has established an environment where daily operational processes can be centrally managed on the monitor. We can now track real-time production progress from upstream to downstream while visualizing quality information. Through these initiatives, we expect to increase the utilization rate of the Hotaka Factory by 20 to 30% in the future.

We are committed to fully involving production floor staff in our efforts to upskill employees and improve productivity.

At the Hotaka Factory, we have established a productivity index (work efficiency) as a KPI, and we quantitatively track labor productivity based on hours invested and recovered. In fiscal 2024, despite a decrease in work volume, we achieved a 3% increase in productivity year over year. In addition, we are steadily making progress in multi-skilling our staff to handle multiple processes. In addition to traditional OJT, we have newly implemented a written exam to improve their skills. This initiative has improved their practical skills and helped them acquire quantitative knowledge of machine cutting parameters and other relevant expertise, thereby lowering the risk of equipment damage and other problems. We also see tangible progress in upskilling employees; 10% of the staff advanced from Levels 1 and 2 (requiring assistance) to Level 3 (able to work independently), increasing the total number of Level 3 staff by 20%.

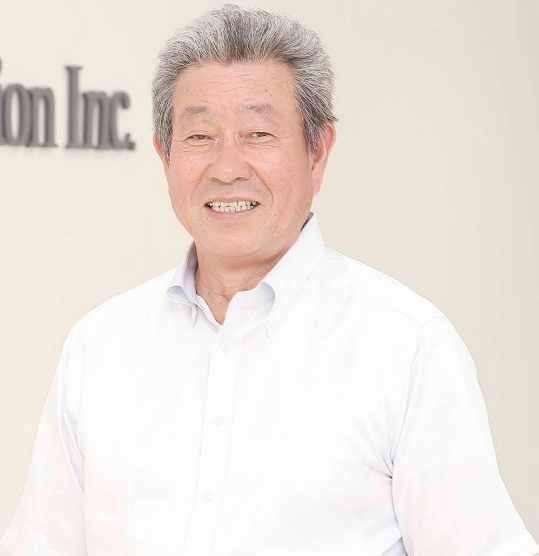
We aim to accelerate standardization and radical improvements to reduce the number of non-conforming products.

The production section is advancing its efforts to reduce the number product non-conformances caused by human error. In fiscal 2024, the internal non-conformance count decreased 43% year over year. In particular, for the assembly process, we conduct thorough analysis to identify where non-conformances occur and why. We standardize the workflow and reflect the findings in the operation sheet to prevent recurrences. Previously, we mostly replaced defective products, but today, we make structural improvements by identifying the causes of defects. Through this initiative, we have embedded individuals' insights as organizational knowledge, thereby improving the quality of production floor operations. In fiscal 2025, we aim to roll out this initiative across divisions and further reduce the number of non-conforming products by 50%.

We will build customer trust and implement an integrated proactive and defensive production strategy.

At the Hotaka Factory and the Ariake Factory, we actively encourage customers to take facility tours so they can see our initiatives and we can win their trust. There were approximately 80 facility tours in fiscal 2024, including both domestic and international visitors, representing a twofold increase from the year before. Visitors have high regard for our ability to meet tight deadlines and quality enhancement initiatives, and this often leads to technological exchanges and business collaborations. Going forward, we plan to utilize co-bots that perform bolt tightening, gluing, and greasing and to build flexible lines that are suitable for high-mix, low-volume production. Simultaneously, we will continue seeking improvements in defensive areas, such as on-time delivery rates and consistent quality of general-purpose products. We also aim to further enhance our on-time delivery rate for rush orders.

Message from the President of Harmonic Precision Inc.



President
Harmonic Precision Inc.
Tetsuaki Maruyama



Cross roller bearing

Taking pride in the importance of manufacturing cross roller bearings internally, we aim to further strengthen operational autonomy. To this end, we will develop new products and expand our customer base by leveraging our unique strengths.

Adjusting to sudden demand fluctuations without compromising quality

For the HDS Group, the in-house manufacturing of cross roller bearings, one of the key components of speed reducers, is of major importance, as it enables us to maintain high quality while responding flexibly to fluctuations in orders. Harmonic Precision was established in July 1999 based on the strategic importance of internally manufacturing cross roller bearings, as sourcing them from external bearing manufacturers limited our ability to quickly adjust to sudden changes in delivery schedules and quantities. We now have in place an in-house system capable of completing production within two weeks of receiving the blank materials. If we relied on outside suppliers, we would need to give provisional notice at least three months in advance, which would considerably limit our flexibility in meeting production requirements. Although the overall quality difference between our products and those purchased is small, our proprietary cross roller bearings with an integrated outer raceway provide superior grease sealing and stiffness. We work with two vendors to ensure stable procurement of rollers, which allows us to absorb demand fluctuations and maintain business continuity.

Strengthening external sales through the acquisition of new customers

In the current weak demand environment, we produce approximately 40,000 cross roller bearings per month. In terms of capacity, monthly outputs could reach 110,000 units, but with the workforce currently in place, production can stably reach up to 70,000 units per month. We supply bearings to HDSI and Harmonic AD, which mainly produce HarmonicDrive® strain wave gears and precision planetary speed reducers, respectively. However, we have recently begun supplying customers outside our Group. For example, one medical equipment manufacturer that previously used HarmonicDrive® products but purchased bearings from another brand has now started evaluating ours after we successfully persuaded them to source from us as well. Although Harmonic Precision does not have its own sales section, we are working closely with HDSI's sales team to acquire new customers.

Our key strengths include competitive prices, responsive prototype studies, quick delivery, and reliable quality assurance.

Providing an employee-friendly workplace environment

We have approximately 200 employees, 52% of whom are women, and we are committed to supporting their advancement into managerial positions. Our workforce also includes 35 skilled workers from Vietnam. Given the high number of female applicants for assembly positions, we designed a welcoming workplace with amenities such as a comfortable cafeteria and a robust paid leave program. At Harmonic Precision, the percentage of employees who took paid leave is as high as 95%, and we offer flexible work arrangements. Simultaneously, recruiting new talents and developing successors remain pressing challenges. First, we urgently need to train production engineers skilled in jig design. We also see the need to foster greater unity between direct and indirect employees and strengthen our ability to make strategic proposals.

Taking on the challenges of developing new products to realize autonomous corporate management

Harmonic Precision embraces the vision of “evolving from a mere contract manufacturer into a proposal-oriented company” and is steadily working toward that goal. To this end, we make it a practice to respond flexibly to changing times and customer needs, taking proactive steps such as adopting new materials that we had never used before and exploring innovative design and manufacturing methods. By proactively drawing on external expertise, we aim to become a company chosen by customers for our technological innovation and superior service quality. Furthermore, by delivering the distinctive value of our proprietary products, such as light weight, high stiffness, and exceptional durability, while maintaining timely delivery and consistent quality, we seek to increase the share of sales to non-group companies over the long term and establish autonomous business operations.

Message from the President of Harmonic AD, Inc.



President
Harmonic AD, Inc.
Masakatsu Ohashi



HPG-R series gearhead

We remain focused on achieving sustainable growth by exploring new customers and applications and pursuing manufacturing innovation led by our younger engineers and skilled workers while leveraging our distinctive strengths.

We currently hold a market share of 30% or over in Japan's precision planetary speed reducer segment.

Harmonic AD, established in 2003 as a spin-off from a division of HDSI, manufactures precision planetary speed reducers for servo motors. Although we were a latecomer to this market, we have minimized power transmission loss and improved durability by applying thin elastic gear technology to the internal gears of our planetary speed reducers, successfully reducing backlash to no more than three arc minutes. Our other distinctive strengths include a short-lead-time delivery system that enables us to supply catalog products in as little as one week and a high level of reliability supported by 100% inspection, which we believe give customers strong peace of mind. In the Japanese market for precision planetary speed reducers with lower reduction ratios, our penetration is estimated at 30% or higher.

Our core business is OEM supply for leading servo motor manufacturers.

We manage our inventories at the component level. By maintaining a stock equivalent to approximately two months of sales, we can deliver products within one week. Close communication with each supplier is maintained to optimize component inventory levels. For example, we share long-term production plans with suppliers for components with long lead times, such as needle bearings, to ensure stable procurement. At present, our sales mainly consist of catalog products. Approximately one-third of our sales come from OEM products supplied to key servo motor manufacturers, and the remainder are delivered to a wide range of general industrial applications, including machine tools, transportation, packaging, and battery manufacturing equipment, along with a number of customized products. For pricing reasons, we currently do not sell online.

We are also preparing to conduct a major reform of our manufacturing methods.

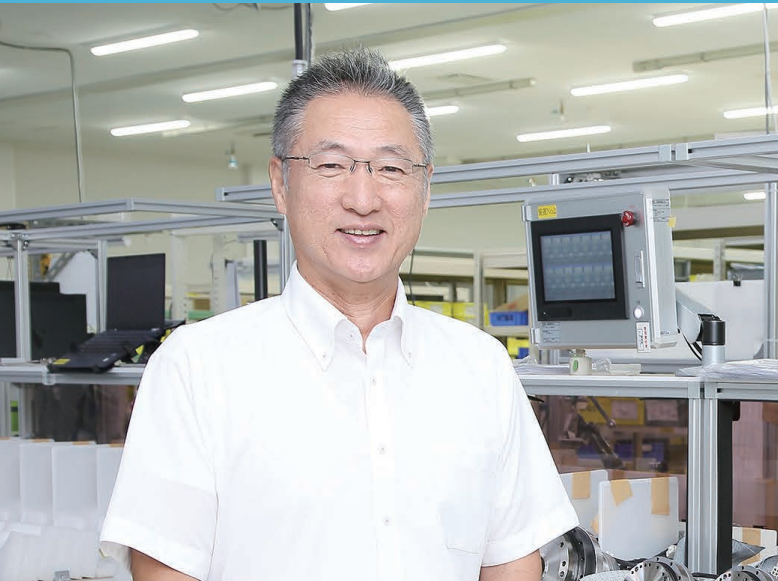
Harmonic AD is fortunate to have many highly skilled employees who actively take on challenging skill

certification exams. We encourage them to pursue these qualifications in the hope that the insights gained through preparation will be applied in their daily work. Currently, we use a cell manufacturing system in which products are assembled manually, producing between 5,000–6,000 units per month against a total production capacity of up to 10,000 units. We are promoting various automation initiatives to enhance productivity and ease workloads. A project to fully automate the planetary shaft press-fit process is now underway. We also reviewed the processing method used for internal gear cutting. With the aim of introducing a new approach that will remarkably improve processing speed, preparations for equipment installation have already begun.

Acquiring new customers is the key to sustainable growth.

We aspire to be a company that delivers products that contribute to society—one in which employees take pride in being part of the organization. Approximately 60 people are currently employed at Harmonic AD. Our current focus is on placing the right people in the right positions and developing younger employees. Alongside improving workplace comfort, we are stepping up efforts to nurture future managerial candidates, who are currently in short supply. New human resource development initiatives have also been initiated, including exchange training programs with our South Korean subsidiary, SAMICK ADM Co., Ltd., and personnel exchange with HDSI. Because we do not have a sales team of our own, our present challenge is determining how best to reach new customers who require customized products. In this regard, we are seeing steady growth in the sales of our products used in automobile production lines and special-purpose robots. Simultaneously, a leading machine tool manufacturer has approached us more frequently with requests such as replacing in-house gears with purchased ones and other customized solutions. Our goal is to achieve sustainable growth by expanding our customer base and broadening our product applications.

Message from the President of Harmonic Winbel Inc.



President
Harmonic Winbel Inc.
Takahisa Tezuka



SHA series AC servo actuator
Hollow Shaft & Flat Type



RH series
DC servo actuator

Continuing to hone our strength in motor technology, we aim to stabilize business performance and reinforce our profit-generating structure by enhancing profitability and expanding external sales.

The founding spirit and steps toward making mechatronics a core business

Since our foundation in 1994, Harmonic Winbel has been mainly involved in developing and designing motors and in supporting the start-up of mass production. In May 2007, we entered into a capital and business alliance with HDSI, reflecting their intention to strengthen the mechatronics business. In April 2023, we changed our trade name from Winbel Co., Ltd. to Harmonic Winbel Inc. following the transfer of production for mechatronics products previously manufactured by HDSI, such as servo motors, actuators, and drivers. Our diverse product portfolio now includes brushless, built-in, and AC/DC servo motors. Currently, 85% of our products are supplied to HDSI, with the remaining 15% being sold to other customers. For these non-HDSI customers, we provide high-precision compact motors used in dialysis system cleanup pumps and machine tools.

Youth-led shop floor and initiatives to strengthen production

We are a youth-driven company with approximately 80 employees and an average age of 37 years. Although many of our employees are still developing their skills due to relatively short tenure, we are actively promoting multiskilling and other initiatives to enhance productivity. Currently, our monthly output is 10,000 units, exceeding our nominal production capacity of 9,000 units. Our objective is to increase production with the current workforce by approximately 20–30% through process improvements, including the introduction of semiautomated equipment and automated adhesive application machines. In 2023, we also began developing personnel systems and a new performance evaluation framework. We are building a foundation that supports development and mass production while stabilizing the organization. Simultaneously, we face challenges in transferring organizational knowledge and recruiting human resources strategically, including shortages of midlevel engineers and stagnating development capabilities. With the expertise of employees seconded from HDSI, we aim to operate the company independently.

Pursuing a competitive edge, sales expansion strategy, and sustainable manufacturing

Our competitive advantage lies in our ability to meet diverse specifications, such as high precision, compactness, and flatness, and in our actuator technology that integrates speed reducers and motor encoders. Our flexible design capability continues to be highly valued, whether for flat designs, split structures, or other customer-specific requirements. Recognizing the risks of our heavy dependence on business with HDSI, we have made a concerted effort to strengthen sales to external customers, aiming to secure one or two proposal-based mass production projects each year. Although we do not have a dedicated sales team, we are actively pursuing new customers by renewing our corporate website and strengthening our technological appeal. Regarding quality, we have declared a goal of “zero failures.” To achieve this, we are fostering a corporate culture in which every employee clearly understands how our products are used and in which production, design, and procurement teams work together to build quality into every process.

Remaining committed to growth and sustainable operations

We celebrated our 30th anniversary in 2023. Since our founding, our strength has been the ability to offer development proposals that closely align with customer needs. However, in recent years, we have recognized that we may not have been as proactive as we would like in bringing new products to the market, instead relying on existing offerings, which we view as a challenge to overcome. Fiscal 2024 closed in the red, primarily due to a decline in HDSI orders and the burden of up-front investment. We aim to return to profitability in fiscal 2025, targeting net sales of approximately ¥3.0 billion. We remain committed to stabilizing our performance and reinforcing our profit-generating structure by handling HDSI projects with confidence and expanding our portfolio of external customer projects, which tend to have higher marginal profit ratios. Simultaneously, we strive to better support global projects, including those in China and other regions. As a “sommelier” of motors, we strive to deliver the most optimal solutions to our customers.

Message from the President of HD Logistics, Inc.



President
HD Logistics, Inc.
Kazuya Narita

Designing ecofriendly packaging materials

By using structured cardboard, we have replaced petroleum-based molds, reduced tape usage, and saved space, which allows us to lower costs.



Serving as the final checkpoint before product shipment within the HDS Group, we aim to evolve into a comprehensive logistics service provider guided by our 2035 vision, which seeks to maximize our strengths in alignment with the Group's Mission.

Background of the foundation and corporate mission: Providing logistics services as the last checkpoint

HD Logistics, Inc. (HDL) was established in April 1999 as a wholly owned subsidiary of HDSI and marked its 26th anniversary in 2025. We currently employ 113 people, including temporary staff, and provide shipment, packaging, and other services on a contractual basis. Operating across five business sites, we provide logistics and administrative services for HDSI and Group companies. As HDL is a spin-off from HDSI's shipment center, we uphold the mission of "delivering HDSI's brand value and quality to customers." In line with this mission, we perform our duties with full awareness of our responsibility as the Group's final checkpoint.

Expanding business domains to achieve the 2035 vision

HDL, as a logistics subsidiary of HDSI, covers a broad range of operations. In addition to packaging and shipping after outgoing inspections, we manage inbound-outbound inventory, handle certain in-process operations excluding manufacturing, and provide administrative services for HDSI on a contractual basis, such as calibration of measuring instruments and processing shipment and trade documentation. Going forward, we aspire to evolve into a comprehensive logistics service provider that delivers new value rather than simply functioning as a contract logistics business, formulating our long-term vision for fiscal 2035. To realize this vision, we have identified two priority policies for fiscal 2025: "establishing the HDL brand" and "strengthening our proposal capabilities." Moving beyond an organizational structure that depends on individual leadership, we now focus on reinforcing the foundation of the organization.

Promoting business process innovation through organizational reform and automation

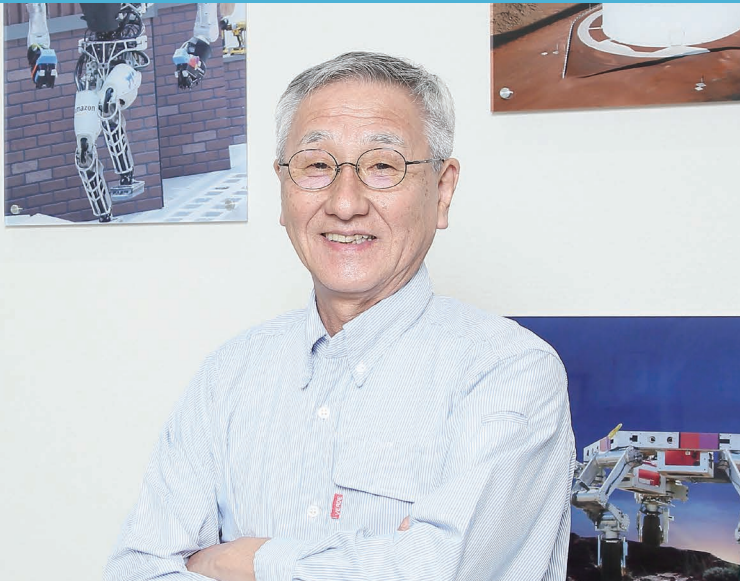
Given the nature of our services, we assign personnel to the factories of Group companies, where they

perform on-site duties. We also plan to recruit new graduates in the coming years. Our goal is to build an organizational structure that promotes employee retention and fosters autonomous growth while enhancing workplace comfort and overall job satisfaction. We also invest in automation and efficiency improvements. Current initiatives include studying ways to automate the packaging process and exploring the introduction of an automated delivery system using autonomous mobile robots. Although transportation and delivery are currently outsourced, we will continue to evaluate the feasibility of handling regular shipment in-house in the future.

Driving growth through value creation and strategic reform

As part of our "defensive" strategy, we aim to strengthen our responsiveness to quality and cost requirements by regularly gathering feedback from HDSI and other Group companies. Simultaneously, we are reinforcing our human capital by developing younger employees and converting temporary staff to regular employment. On the "offensive" side, we have partially revised our traditional contracted service business model, launching initiatives to further enhance profitability for both HDL and the HDS Group. We have also developed proposals for ecofriendly packaging materials and methods that enhance the corporate value of HDL and HDS Group companies, some of which HDSI has already adopted. Through these initiatives, we contribute to reducing the environmental impact of HDS Group customers. Beyond that, we have begun negotiating improvements in unit prices for our contracted services and seeking new orders, including from non-Group customers, to strengthen our ability to generate profits independently. Moving forward, we aim to make our presence felt more strongly as a true value-creating company no longer the unsung hero but a recognized driver of progress within the group.

Message from the Chief Technical Officer and Quality Officer



Executive Fellow Officer
(Chief Technical Officer)
(In Charge of Engineering and Quality)
General Manager of Quality Assurance Division

Yoshihide Kiyosawa

Topics

At the Global Innovation & Quality Award hosted by Nissan Motor Company in 2024, we received the Japan Regional Quality Award in the ENGINE & DRIVE category. The high quality of our products was positively acknowledged, resulting in us being chosen from numerous suppliers in the same category.



The HDS Group's quality culture is based on proactive and defensive quality strategies, which involve committing to manufacturing excellence at the nexus of technology and quality and turning trust in our integrity into an asset.

The essence of manufacturing excellence where technology meets quality

When I started my career as an engineer, my relationship with the quality assurance section was not always smooth. Our efforts to adopt new technologies have often been tightly constrained by quality requirements, leading to occasional friction. Now that I've assumed my current position, I realize that technologies are for achieving capabilities that customers want, whereas quality control is about making defect-free products. When both aspects align, we can sustain stable performance. However, this is not easy to achieve. Historically, we converted American-specification drawings from inches to millimeters and made micron-level machining our standard, a foundation that continues to define us today. This culture is embedded in our DNA, and our techniques based on sensory perceptions and tactile feedback achieve unique quality that is unmatched by machines. Craftspeople's tactile feedback is difficult to quantify and impossible to completely replace with machines. In fact, we once tried implementing a production approach independent of human senses at the Germany subsidiary. In the end, however, we had to rely on human sensory perceptions.

Customer satisfaction as a performance indicator for the quality assurance division

Since I started overseeing the quality assurance section four years ago, my commitment to eliminating wasteful inspections has not changed. The true purpose of enhancing inspections is not to detect defects; rather, it is to prevent making non-conforming products. Although it is not easy to thoroughly investigate causes and prevent non-conformances, we are steadily making improvements by learning from errors and preventing recurrences. Production floor staff now consult with us more frequently, indicating that our relationship has evolved from adversarial to collaborative, with both parties working together to solve problems. Not all values sought by customers can be quantified, but there is one expectation

common to all of them: delivering consistent performance. To meet their expectations, we clearly distinguish quality assurance and quality control, with the former dedicated to ensuring customer satisfaction and the latter to preventing non-conformances.

Approaching quality control with sincerity to turn trust into assets

Through these measures, we have successfully reduced the time that the sales division spends on quality issues, allowing them to focus on proactive sales activities. There have been instances where candidly reporting product defects and taking quick actions have led to strengthened trust and additional orders. The quality assurance section now includes personnel with development experience who analyze causes and work with production floor staff to solve problems, a culture that has been embedded in our organization. We also focus on improving quality at affiliated companies and have enhanced product quality throughout the supply chain by simplifying inspection work. While we sometimes saw finger pointing in the past, we now have a quality culture that encourages taking on challenges and where people share mistakes to make improvements.

The future of the HDS Group's quality control is underpinned by bold initiatives and stability

Our Group is working on proactive quality enhancement strategies, including production yield improvements and accelerated deliveries, while maintaining a 100% share in challenging fields like aerospace applications. Meanwhile, for mass-produced products, we are focusing on defensive quality control measures through our company-wide cost innovation project to eliminate wasteful production and achieve manufacturing standards that do not require inspections. There was an instance where a quality issue occurred shortly after receiving praise from a customer, but we were able to recover trust through our sincere actions. Continuously pursuing consistent performance, lower costs, and enhanced reliability, this approach forms the core of our Group's quality culture.

Message from the President of Ome Iron Casting Co., Ltd.

We are committed to contributing to global technological development by supplying the world's highest-quality materials with employees whose passion burns as hot as molten iron.



President
Ome Iron Casting Co., Ltd.

Takuro Miyoshi

Our mission and growth strategy

In 2008, Ome Iron Casting entered into a capital and business alliance with HDSI to ensure a stable supply of cast iron for circular splines, one of the key components of the HarmonicDrive® ultraprecision strain wave gears, and to accelerate the development of new technologies and products. Currently, cast components for circular splines (cast iron) and other products supplied to the HDS Group account for approximately 60% of our net sales, most of which are used in the robotics business. Additionally, our products are highly valued by customers across industrial sectors, including valves, civil engineering, playground equipment fittings, refrigeration facilities, and construction equipment. Thus, our technological foundation has spread into different fields. We position the robotics business as the core of our management strategy. Simultaneously, by proactively expanding our customer base, we aim to acquire new expertise and technical know-how, further strengthening our supply stability.

Our proprietary technologies enable patented material compositions and superior material quality.

Our greatest strength lies in the high-strength ductile cast iron used in the circular spline of the HarmonicDrive®. This material features patented compositions that deliver exceptional wear resistance and high strength that no other competitors can replicate, giving us a distinct competitive edge. Spheroidal graphite cast iron is typically heat-treated to stabilize its metal structure and properties. However, we have achieved stable mass production by eliminating this heat treatment process and applying an unconventional alloy

design in combination with our proprietary expertise. The required quality of raw material and process control is extremely high, creating a natural entry barrier. Our quality assurance system is equally rigorous. In addition to lot-by-lot tension testing, sampling-based hardness measurements and 100% metallurgical inspections are conducted in accordance with the Japan Industrial Standard to meet the precise hardness criteria required for ductile cast iron. Only cast-iron products that pass these stringent evaluations are used in HarmonicDrive® circular splines.

Exploring new applications in untapped markets

Beyond the robotics field, ductile cast iron has been adopted on a trial basis for noise reduction in railway engine drive gears, with ongoing R&D aimed at enabling future mass production. We are also receiving an increasing number of requests for prototype studies and joint development across a wide range of fields, driven by the global push for improved fuel efficiency and weight reduction to support carbon neutrality and accelerated infrastructure development in response to more frequent natural disasters. As we expand into these new application areas, we take the utmost care in guiding each project toward mass production. This heat-treatment-free ductile cast iron is a valuable asset developed by our former president and predecessors through hundreds of melting trials and repeated experimentation. To carry these achievements forward to the next generation, every employee continues to challenge themselves and refine their skills with the shared goal of achieving truly “world-class material compositions.”

The value people create and our corporate culture

Our greatest strength and most important asset are our people: employees who dedicate themselves to their craft and work tirelessly under the intense heat of the foundry. Maintaining business stability is essential to preserve this invaluable asset. Achieving this begins with taking exceptional care of our customers and earning their trust. At every morning assembly, we remind our employees of the importance of “cheerfully greeting” everyone who visits our facilities, including customers, suppliers, mail carriers, catering staff, transport operators, and local community members. This practice is far more than a formality; it represents the first step in building trust with our community and directly contributes to higher customer satisfaction. I believe that connecting these accomplishments to employees' and their families' happiness embodies our corporate culture and forms the foundation for future prosperity.



Pouring process

Management Based on Ceaseless R&D and Constant Emphasis on Quality

As a basic principle, the HDS Group prioritizes “ceaseless research and development activities” and “a constant emphasis on quality,” as a foundation to its management aiming to create attractive products that satisfy our customers and provide services from the perspective of our customers.

■ R&D Organization

The R&D organization comprises the New Mechanism Principle Laboratory, which conducts R&D of new principles and mechanisms, free from the boundaries of existing products and technologies; the Harmonic Drive Laboratory, which conducts preemptive research and product development based on future forecasts with a focus on deepening and expanding core technologies; the Development and Engineering Division, which develops and designs products based on customer requests; and the Production Technology Division, which conducts R&D of the methods and equipment required for product manufacturing.

This system enables us not only to meet diverse customer requests but also to conduct preemptive R&D for the future, pursue fundamental technologies that form the basis of all R&D, and actively engage in studying new principles and mechanisms capable of delivering innovative value to customers in the future. We are building a system capable of adapting to the rapid changes of today.

Furthermore, to enable agile customer response and to accelerate technological development, our business operations are conducted through the close collaborations among the three sections of sales, development and production. Also, we pursue technological development aiming to establish new technologies through the collaboration among the industry, government, and academia.

■ Quality Promotion Organization

In the HDS Group, the head of quality assurance of Harmonic Drive Systems Inc. supervises the quality of

our branded products across group companies, shares policies, and ensures the promotion of initiatives.

To enhance the quality level of all matters related to our branded products such as development, production, and service, the head of quality assurance grasps the quality status of each company through the quality assurance divisions of each group company, and receives quality reports, including critical quality issues, in the regular quality meetings held every month at each company. Through such efforts, the HDS Group supervises quality information.

Furthermore, through the quality assurance divisions in each group company, we guide and supervise domestic and international factories, suppliers, and partner companies entrusted with manufacturing.

All group companies involved in manufacturing are certified with ISO9001, the international standard for quality management systems, and we are committed to maintaining and improving a quality assurance system for the stable delivery of high-quality products.

Five strengths of the HDS Group that serve in meeting customer expectations

(1) Accumulated technologies and skills related to strain wave gearing, HarmonicDrive®

We believe that the development technologies, production technologies, processing and assembly technologies and skills, and production systems that we have built up for more than 50 years since our foundation in pursuit of expanding the potential of speed reducers, are the HDS Group's greatest strength.

(2) A product lineup providing compact size, light weight, and high accuracy

The mechatronics products and speed reducers are being chosen by customers who seek advanced levels of motion control and more compact, lightweight equipment. We provide differentiated added value that would be difficult to achieve with any other mechanisms across a wide range of applications.

(3) Core technology enabling the provision of total motion control

The HDS Group has built up total motion control technologies and skills through R&D and production of mechatronics products that integrate speed reducers, motors, sensors, drivers, controllers, and other system elements. The resulting tangible and intangible technologies and skills related to core technology are the source of the competitive advantage of the HDS Group.

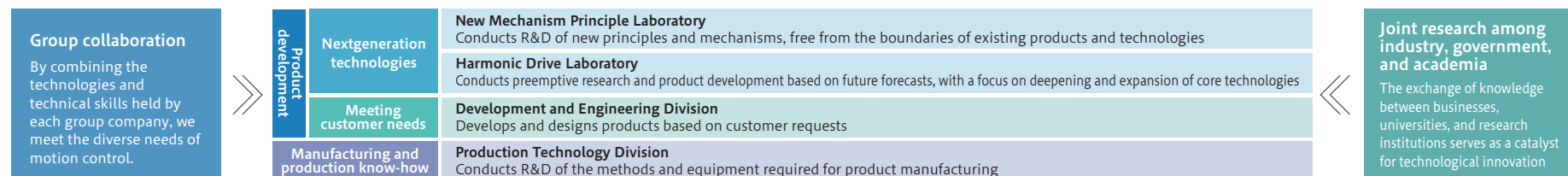
(4) Business operations integrating sales, manufacturing, and development

The strength of the HDS Group lies in the system in place to provide products that meet customer expectations by quickly reflecting customer needs and engineers' ideas in manufacturing, which is made possible through the close collaborations among the sales, manufacturing, engineering, and development sections.

(5) Global business expansion

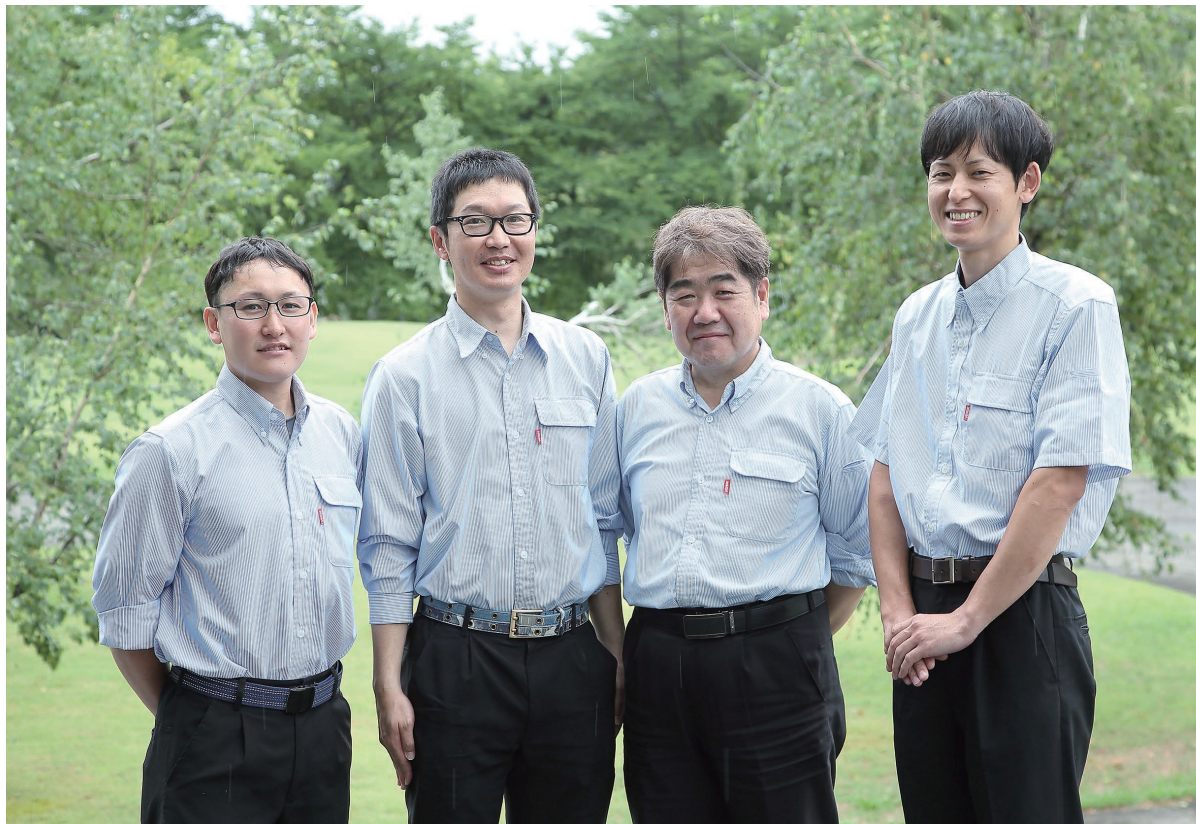
The HDS Group has operation sites in Japan, Europe, the U.S., South Korea, China, and Taiwan. Business strategies that conform to characteristics of each region are promoted and each site mutually cooperates to provide optimal products and services to customers around the world.

● R&D Organization



Employee Roundtable Discussion “Craftsmanship and quality as pillars of the HDS Group”

Four employees responsible for upholding the craftsmanship and quality that define the HDS Group discussed what makes our Group’s unique sensory testing difficult and important and the quality-focused testing framework.



Takeshi Hiraide

First Production Division
Unit Production
Department
A-line Unit Assembly

Hidetaka Iwahara

First Production Division
HD Production Department
#1 (Mainline)
C/S Line Component Testing
Leader

Yoshito Yamaguchi

Quality Assurance Division
Quality Control Department
Shipment Inspection at
Hotaka Factory
Manager

Yusuke Takizawa

First Production Division
Unit Production
Department
A-line Mini-unit Assembly
Leader

Q.

Tell us about our techniques and capabilities that differentiate us and our competitors cannot mimic.

Yamaguchi: Sensory testing, which relies on human perception, is one of our unique processes that other companies cannot mimic. Because every product has a different shape, we need to use different jigs for testing each product. If the shape was fixed and standardized, we could manage this by spending more time. However, because our minimum lot size is one piece, automating the inspection is difficult because of time and cost constraints. Therefore, our highly stable machining and inspection capabilities serve as our unique differentiators. Because the process involves human intervention, variations are unavoidable. However, they can be adjusted through our proprietary know-how, which can be rightfully described as craftsmanship.

Iwahara: Sensory testing relies on human perceptions. Meeting the standard values would be sufficient, but because the inspection relies on fingertip sensitivity, differences in quality assessment can occur. This is our key proprietary technique, and to ensure consistent skill levels among inspectors, they need to acquire our proprietary in-house certificate. Only certified employees are allowed to perform sensory testing, and becoming certified takes more than six months. Furthermore, just like a driver’s license, the certificate must be renewed once every few years.

Takizawa: For performance testing, we mount the workpiece on the testing device and launch the device, and mounting the workpiece requires operator expertise. In particular, we need high precision for the process where the workpiece is carefully placed at the designated position and the wave generator is precisely fixed. This is because how tightly they are fastened affects the data obtained. Therefore, we often have to rely on humans skills to obtain accurate inspection data. HarmonicDrive® has a very simple structure, which is why differences in each individual workpiece remarkably affect the product performance. We conduct full inspection for customers who request it.

Special Feature: Employee Roundtable Discussion “Craftsmanship and quality as pillars of the HDS Group”

Hiraide: High-mix, low-volume assembly requires not only assembly experience but also thorough knowledge of customer needs and products themselves. In particular, when assembling the smallest model, it is important to thoroughly understand the product structure and applications. It also requires dexterity. Competitors' portfolios are focused on popular standard products, whereas we offer extensive product lines. Especially for the assembly of our smallest model used in applications, such as AI robot fingertips, we are confident that we maintain a technical lead of more than 10 years over our competitors.



Q. Could any of the techniques and skills be replaced with machines?

Hiraide: Robotization is an important means of automation. Robots can properly assemble products with simpler structures. At our company, we have successfully digitized the assembly processes by using robots for standard, general-purpose products. However, small, specialized high-mix, low-volume products, such as those used in AI robot finger joints, have complex structures and are produced in a limited volume. Therefore, in reality, automating the process would not be worth the cost. Assembling and inspecting these specialized products often require human perceptions, which are difficult to replace with machines.

Takizawa: For products with simple structures, the processes can be automated. However, automating processes for products with complex structures and numerous components would be more difficult. Currently, humans inspect such products. However, I believe that if AI and other technologies evolve, we will be able to automate the inspection process in the future. However, because some processes involve inserting components with complex shapes, it may take considerable time to fully digitize and automate them.

Yamaguchi: There is a dilemma in the inspection: even with automated measurement equipment, we still need setup time to operate it. Additionally, when inserting wave generators for high-end products, we use human operators in the assembly process because some customers find that manual assembly provides better precision. In using AI, it is humans who train and instruct it. We do not have clearly defined quality judgment criteria or equipment that can distinguish between scratches and dirt on product surfaces. Therefore, human involvement is essential. I believe that digitizing the processes (implementing AI) will take approximately 10 years.



Takizawa: Especially when assembling small and specialized speed reducers, the operators must be able to understand the product structures and shapes from assembly drawings and must have knowledge to explain them. This is because insufficient knowledge may lead to product nonconformance. Another challenge is that knowledge and experience from assembling one specialized product cannot be directly applied for another. To educate employees, we provide OFF-JT (group training), but mostly rely on OJT (on-site training). We also use distance learning to educate our personnel on materials science and other basic knowledge. Manufacturers that require this level of expertise and skills from their operators may be quite rare.

Q. Tell us about the training and succession of engineers and technicians.

Iwahara: Sensory testing could be more efficiently conducted with machines, but we currently rely on manual work. We are advancing successor training based on a five-level competency assessment. Mr. Yamaguchi's judgment is one of the criteria for our Group's sensory testing. Ideally, there should be a machine or clear criteria for consistent assessment, in reality; however, we rely on human tactile feedback, which is one of the factors making technical training and succession difficult. Gaining hands-on experience is the most effective way to advance our capabilities, which constitutes our unique training and succession approach.



Special Feature: Employee Roundtable Discussion “Craftsmanship and quality as pillars of the HDS Group”

Yamaguchi: Shipment inspection also requires an internal certification. If you complete at least one month of training and pass the exam, you can engage in shipment inspection work, but you will still need to attend training on an ongoing basis. In addition to shipment inspection, we also handle dimension measurement requests. On the basis of provided drawings and specifications, we need to think for ourselves about what to measure and how, which instruments to use and how to use them, and what kind of data can be obtained, among other things. We also need to determine if the data obtained are what the requestor wants, which requires communication skills for accurately identifying their requirements and intentions. If we do not sufficiently understand them, the measurement results would be useless. In our training program, we focus on developing these judgment skills and adaptability.

Takizawa: In training successors, we visualize operators’ skill sets for effective training and education. In the training process, rather than relying on conventional tacit knowledge, we provide guidance using up-to-date operation sheets that systematically document know-how. In particular, we emphasize learning from past mistakes. For example, for a case where a product was accidentally dropped, we clarify why it dropped and which operational methods were problematic and help them better understand the case through visual materials, such as photos and videos.



Q.
Tell us about your initiatives for maximizing output while maintaining high product quality.

Iwahara: To maximize output, it is crucial to build a production system that can flexibly adapt to changing demands. To that end, we believe that promoting multiskilling is effective. We are currently actively promoting multiskilling for sensory testing as well. Ideally, we hope that all team members will be able to perform sensory testing corresponding to different models. Currently, out of the 12 members of my section, three are certified for sensory testing. As more members become certified, I expect that our inspection coverage will expand, resulting in improved output.

Yamaguchi: Inspection menus vary by product, and specialized inspections use various measurement instruments. Currently, testing is concentrated among certified inspectors. but as more staff become qualified, we will be able to maximize the output. Therefore, we have just introduced two additional instruments to further automate measurement work. Ideally, there should be a complete measurement manual, but in reality, we mostly rely on know-how, making steady training essential. This serves not only as an entry barrier but also as a bottleneck hindering performance optimization.

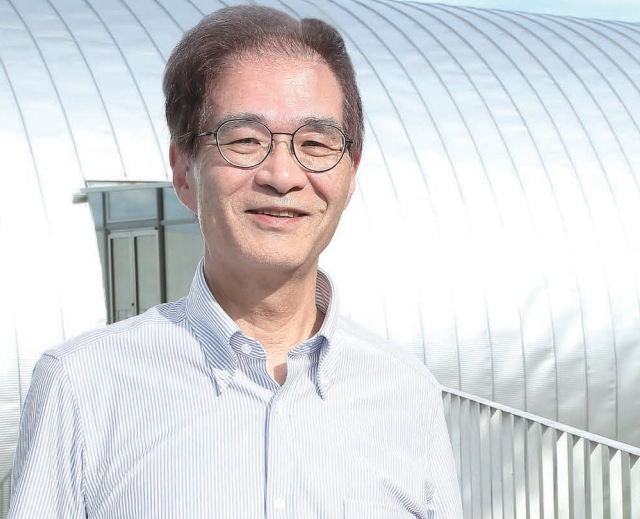
Takizawa: We are improving the production work environment, including improving operator workflow, reviewing production processes, and modifying processes for higher productivity. At the Hotaka Factory, which handles custom products, we are deploying automated assembly machines. Because the Hotaka Factory handles many customized products, machines often stop there. However, we aim to maximize the output by addressing issues and enhancing automation. Additionally, we are actively promoting multiskilling, because it is one of the key initiatives for enabling flexible work styles, including work style reform and encouraging employees to take paid leave and childcare leave.

Hiraide: To promote multiskilling, we are improving jigs and equipment, so anyone can easily use them. For some specialized products, we use jigs that are difficult to operate, which often makes multiskilling difficult. By solving each of these problems, we are currently building a system where anyone can easily assemble even specialized products. We believe that this will ultimately lead to maximized output.



Moderator: Thank you for your time today. I now understand the importance of your distinctive proprietary techniques and skills that are difficult to digitize. I also have realized that you maintain a lead of at least 10 years even as competitors emerge.

Message from the Officer in Charge of Development and Engineering



Director
Executive Officer
(In Charge of Development and Engineering)
Head of the Company Wide
Cost Innovation Project
Yoshihiro Tanioka

New product : AC servo driver HA-900A series
Releasing a new AC servo driver that maximizes actuator performance through innovative control technology



With the launch of the new product HA900 as a starting point, we will pioneer next-generation motion control for the HDS Group by reinforcing our technological foundations, expanding markets, and implementing IP strategies.

■ Launching the long-awaited HA900

The HDS Group has been actively offering total motion control through integrated in-house development and manufacturing covering motors, drivers, and control technologies. This approach is represented by HA900, a new driver released in October 2024. As a successor to the HA800 model, HA900 solves issues like vibration and noise through further advanced control technology while maintaining the compatibility of its predecessor. When we exhibited the new model at caravan events, it was positively received by our customers, and demand to switch from the old model is steadily increasing. Going forward, the key will be developing applications that maximize the performance of our HarmonicDrive® strain wave gears. At the International Symposium 2025 held in October this year, I gave a presentation on the evolution of control software as the development team representative.

■ Reinforcing the research and development foundation that supports technological capabilities and reliability

Creating new value requires enhancing product capabilities and improving theoretical validation and reliability to support them. Our Company utilizes FEM (Finite Element Method) analysis to scientifically understand the structural behavior and stress distribution of strain wave gears. Based on these insights, we pursue rational and safe designs to propose optimal specifications tailored to each customer's applications. Specifically, we are currently working with a grease manufacturer to develop new types of grease while developing oil seals that effectively prevent grease leakages in unit structures to further enhance the reliability of HarmonicDrive®. We will continue to strengthen our collaboration with Harmonic Drive Laboratory and further accelerate our initiatives to balance quality and reliability.

■ Penetrating markets and expanding into new fields through customized solutions

Our Group's strength is the ability to flexibly tailor our

solutions to different customer needs. Beyond traditional industrial robotics, we provide products for various fields, including automotive applications and other mass-production projects, as well as space and next-generation mobility. For example, we are steadily making progress in integrating state-of-the-art technologies, including the lunar rover project with Toyota Motor Corporation and flying cars that were demonstrated at the Osaka-Kansai Expo. Furthermore, we are accelerating our expansion into AI-enabled robotics, which requires light weight and high performance, allowing our Group to demonstrate a competitive advantage. On the development front, we are reviewing the balance between cost and performance when conducting destructive strength evaluations and verifying relaxed tolerances to adopt lower-cost materials. Through these initiatives, we aim to balance cost competitiveness and performance by transforming our design approach, rather than focusing only on high performance.

■ Shaping the future by expanding the production lineup and implementing IP strategies

We will promote the full-scale launch of the light-weight and high-precision ULW series while modularizing the designs and evaluations. By revising the model number system, we will expand the product lineup based on uniform standards while streamlining designs and accelerating commercialization. On the defensive side, we have established a system that ensures technical accountability to customers by scientifically understanding how failures occur through FEM analysis and other means and reinforcing designs based on theory. Regarding patent strategies, based on lessons learned, we will actively patent our machining technologies and other know-how to further strengthen our competitive differentiation. Moreover, in the medium term, we will develop markets for next-generation mechatronics products, including intelligent actuators, while accelerating the evolution of HarmonicDrive®.

Message from the Officer in Charge of the Laboratory



Executive Officer
Head of Harmonic Drive Laboratory
Shizuka Yata

While staying true to our research culture “Don’t fear failure; just try first,” we will evolve into a laboratory that pursues offensive business strategies for financial and nonfinancial contributions.

Providing technological support for the new alliance-enabled project

As the Group’s core technological function, the Harmonic Drive Laboratory is committed to creating new value through close collaboration with internal and external parties. We are currently advancing a joint development project for small robot hands with a business partner. By leveraging our compact HarmonicDrive®, which features high torque density, we are exploring new possibilities in the robot solution field. Additionally, we plan to exhibit at CES 2026, one of the world’s largest technology exhibitions, which will take place in the U.S. in January 2026. In this way, we are committed to envisioning the future based on more reliable technology while engaging in repeated technological discussions with domestic and international companies, research institutes, and universities; continuously proposing solutions to the market and receiving feedback.

Seeking to transform into a laboratory that pursues offensive business strategies

The laboratory’s mission is to advance fundamental technology and maintain and strengthen our position as the top company in strain wave gear technology. For example, as the leader in this field, we take pride in our dedication to continuously obtaining component test data and conducting analysis to meet expectations for reliable test data and interpretations in the aerospace domain. Meanwhile, we emphasize the importance of learning through taking on challenges. In recent years, we have been working to develop compact HarmonicDrive® for physical AI requiring compactness and light weight. One engineer reflected, “I had been so afraid of failure that I forgot to take on challenges.” This prompted us in the laboratory to renew our commitment to the spirit of “let’s just try it.” We even start external collaborations by encouraging a “try first” mindset.

Providing technological support and ensuring quality to drive financial performance

For financial contribution, we conducted technical assessments of parts and materials procured from Chinese manufacturers through the Company-wide Cost Innovation Project Subcommittee. We collected and analyzed experiment data from both reliability and cost perspectives and compiled our findings based on the results. Additionally, through persistent technological support, some customers have come to understand our products and adopted them in their new offerings. The laboratory’s core value lies in its technological credibility based on quantitative lifespan assessments and reliability. We currently have eight members working in two teams: numerical analysis and experimentation. Our initiatives, which combine analytical and execution capabilities, have directly led to enhanced product reliability and financial impact.

Establishing a sustainable technological foundation and addressing material issues

On the nonfinancial front, the laboratory strongly supports the innovation of the HDS Group. In addition to maintaining and improving quality, building a culture that tolerates taking on challenges and failing for innovation is crucial, as it directly relates to our material issues. In addition to accumulating expertise on lubrication, tribology, and other technologies, we will build testing environments, including vacuum chambers for space applications and clean rooms. By doing this, we will establish an agile system that will allow us to promptly respond to external and internal development requests. This will enable us to make proactive proposals aiming to create new markets. Our laboratory will work with domestic and international networks and continue to steadily create future technological value as the stronghold of technology supporting the HDS Group’s future.

Message from the Officer in Charge of Sales



Director
Executive Officer
(In Charge of Marketing and Sales)
General Manager of Domestic Sales Division
Naomi Shirasawa

The price revision has provided an opportunity to further strengthen customer trust. We will think flexibly and implement proactive business strategies to transform changes in the business environment into a driving force.

■ We need to think flexibly and change our perspective.

As the industrial structure and economic cycle transform, we emphasize the importance of carefully observing and understanding customer behaviors while working together to identify and respond to changes in society and the market. Beyond our group's traditional strengths in precision and stiffness, we must now address new elements, such as flexibility and optimization. These involve redesigning products and changing materials by leveraging the rapidly advancing integration with AI and software. Even if products themselves remain unchanged, the required performance and characteristics continue to change, requiring us to strategically transform ourselves, including honing our technologies and even downgrading specifications, which used to be unthinkable. I believe that the sales team needs to understand the changes and develop flexible thinking to propose optimal solutions that balance technology and customer needs.

■ We have succeeded in updating prices for the first time in 15 years while building customer trust.

In October 2024, we revised product prices for the first time in 15 years. The revision was driven by factors, such as rising material prices and labor costs. Rather than simply changing prices, we directly spoke with all customers to sincerely explain the situation, thereby gaining their understanding on our improved product quality and delivery flexibility, among other capabilities. I feel that this has enabled us to reinforce our customer relationships, achieving results that go beyond gains from price revision. We are currently reviewing our relationships with our dealers and optimizing our distribution network. We engaged in price negotiations to establish mutually beneficial relationships based on trust and repeated discussions, rather than settling for temporary measures.

■ We are also seeking to enhance our field capabilities and agility.

With digital transformation (DX) of sales now in full swing, we are using Salesforce, our sales support system, to integrate data, prepare weekly sales activity reports, and automate processes, such as quotation generation. These advances in digitization have enabled us to visualize our business activities, leading to improved quality in sales operations. Simultaneously, through group training for mid-level employees and continuous training for younger personnel, we are developing next-generation management talent and enhancing the technological expertise and execution skills of sales team members. By doing this, we are building an organizational system that allows us to flexibly adapt to changes. We are seeing more male employees taking childcare leave, and a corporate culture supporting flexible work styles is spreading. By reinforcing field capabilities like this, we are enhancing our ability to serve our customers, leading to a strengthened foundation for competitiveness.

■ For growing markets, we will implement proactive business strategies.

With the rapid growth of the AI sector, including semiconductors and robotics, as well as the emergence of next-generation mobility, we are increasingly hopeful that we will expand into new markets and applications in the medium to long term. In the robotics field, we participate in our customers' development projects. In the semiconductor manufacturing equipment field, we aim to increase the adoption rate in next-generation equipment by engaging with 10 major customers in their projects, starting from the development phase. Meanwhile, regarding overseas operations, we ensure close collaboration among the four hubs (Japan, the U.S., Germany, and China) through global conferences and online meetings to share information on competitive landscape and market opportunities. Regarding the promising physical AI field, we are reinforcing our flexible sales structure to swiftly respond wherever markets may emerge. We will enhance our global competitive advantage by leveraging our custom solution capabilities.

Message from the Officer in Charge of Corporate Planning



Executive Officer
General Manager of Corporate Planning
and Head of Business Development
Tetsuya Shiokawa

We will break away from passive management and integrate the organization by strengthening proactive growth strategies and global collaboration. By doing so, we will promote transformations for global success.

We will shift from the product-out approach and rebuild our growth strategies.

I feel that our group has been underestimating the importance of growth strategies as we have been taking a product-out management approach due to our strong product competitiveness. Previously, while we were simply waiting, our customers invited us to join their projects or asked us to manufacture products for them, allowing us to sustain our business through a passive approach. In recent years, however, due to changes in the demand landscape and the emergence of competitors, we have been urged to break away from our traditional passive management style and start proactively proposing through growth strategies. In fact, we are currently implementing proactive physical AI strategies, and the employee mindset is starting to change. The Corporate Planning Division would like to promote our group's transformation by spearheading aggressive strategies and foundational work to stay ahead of our competitors.

We will implement proactive differentiation strategies with a sense of urgency.

For physical AI, some of our group's customers have begun mass production, and we have ongoing prototyping projects with multiple companies. However, in our existing business domains, we are concerned that one day, relying only on our current stand-alone offerings may not be sufficient to sustain our business, and alternative products may emerge. Therefore, it is essential to actively establish frameworks for co-creating with our customers and building unwavering trust. Beyond stand-alone speed reducers, we will expand into the module and actuator field to differentiate ourselves from our competitors to ensure that we will achieve the provision of total motion control as our business domain. We will turn the sense of urgency into our driving force, and we will progressively build a robust organizational structure.

While improving our strengths, we also need to question our traditional assumptions.

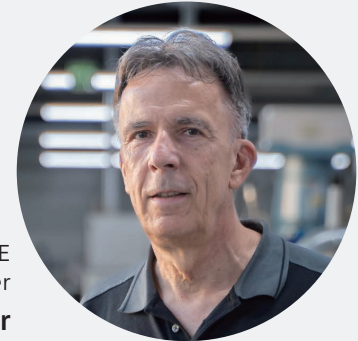
Our group's strengths lie in our superior brand recognition and quality, as well as our production capacity and our enhanced capability to ensure on-time delivery. We have established four production hubs in four locations: Japan, Europe, the U.S., and Korea, which allows us to flexibly adapt to geopolitical risks and changes in geographic demands while maintaining sufficient supply capacity. Our shareholders and investors often ask us if we can produce locally in China, so this will need to be discussed because the technological level of the local manufacturers of materials and bearings has been improving. First, we will steadily promote our ongoing collaborations with Chinese local partners and will adopt locally produced materials as part of the company-wide cost innovation project to enhance our profitability.

By enhancing global collaborations, we will integrate our strategies.

Within our group, our international subsidiaries have been autonomously managing their business in their respective markets. However, our global presence as a group has not been strong enough. Therefore, in 2024, we launched our first strategic conference that convened the leaders from our three hubs: Japan, Europe, and the U.S. I attended the global sales & marketing meeting held in June, where we exchanged views on when and where mega corporations globally distributing AI robots will produce their products, how much they will produce, how we will respond, and other relevant matters. In July, the global quality assurance meeting took place, and in October, the production engineering team held the global engineering meeting. Through these global meetings, we will further integrate group strategies to enhance our ability to adapt to changing demands and serve global customers.

Message from the CEO of Harmonic Drive SE (Germany)

We will pursue our strategic focus by expanding in Aviation & Space and Artificial Intelligence (AI)-enabled robotics, deepening our innovation pipeline, enhancing our digital infrastructure, and providing our customers with tailored, flexible solutions.



Harmonic Drive SE
Chief Executive Officer

Thomas Berger

My mission as CEO and global strategy

For more than 20 years, I have worked in various management roles as part of the Harmonic Drive Group. Since 2022, I have been the CEO of Harmonic Drive SE (HDSE). I am proud to have been able to position the company to achieve further growth with the help of our business strategy. I believe it will help increase overall profits if we further expand collaboration between Harmonic Drive companies, particularly regarding customers, products, and brand. It is my mission to ensure that this approach is reflected and put into practice in future action plans. We are dedicated to achieving sustainable growth and shaping the future of HDSE and the Harmonic Drive Group through precision, innovation, and resilience.

Expanding in the Aviation & Space sector and addressing industrial challenges

One of our priority areas in 2025 is the Aviation & Space sector. Harmonic Drive's high-precision, lightweight, and compact drive technologies are ideally suited for Aviation & Space applications where safety, reliability, and performance are nonnegotiable. We have initiated several co-development projects with key players in the aerospace ecosystem while continuing to deepen existing partnerships. We also intensified our prototyping business to accelerate the time-to-market of tailored solutions for new Aviation & Space platforms. Through these efforts, we have established a framework that enables us to flexibly serve customers with smaller volumes or highly

individualized requirements, leveraging our strategic strengths to set us apart from the competition.

Driving innovation through robotics and digitalization

Technology development for AI-enabled robots, including humanoid robots, is at the core of our innovation strategy. HarmonicDrive® components are integral to next-generation humanoid systems. Our technologies are opening up transformative applications in medical technology, logistics, and personal assistance by enabling more natural motion and higher energy efficiency. In parallel, we have further strengthened our focus on smart manufacturing by integrating intelligent systems and data-driven processes across production. This allows us to work more efficiently, quickly adapt to changing customer needs, and enhance product quality. Furthermore, we expanded our social media channels and strengthened our online presence through a complete website relaunch, targeted campaigns, people-centric content, and significantly increased output, fostering dialogue with customers, partners, and future employees. We participated in significantly more trade fairs than in previous years, using these opportunities to showcase innovations and connect with customers.

Solidifying the growth platform with sustainability and human resources strategies

We remain committed to environmental responsibility and social engagement as part of our efforts to

maximize corporate value. In 2025, we continue to implement energy-saving measures by reducing CO₂ emissions from our operations, expanding our electric vehicle fleet, and introducing smart LED lighting systems, thereby improving sustainability and cost-effectiveness. Regarding our human resources strategy, we welcomed Christian Reuter to our Management Board, strengthening leadership and reinforcing our team-first philosophy. As an attractive and forward-thinking employer, we invest in our employees and create an environment in which talent can grow and thrive. Furthermore, we are considering bringing our three major production locations around the world (Japan, Germany, and the U.S.) together under a shared brand identity. As we move toward 2027, we will pursue our strategic focus by expanding in Aviation & Space and AI-enabled robotics, expanding our digital infrastructure, supporting our customers with tailored, flexible solutions, promoting sustainability, and continuing to build a strong team.



Message from the President & CEO of Harmonic Drive LLC (USA)

Our strategy has been to advance the development and delivery of solutions with a unique value proposition, such as lightweight and compact integrated actuators, to ensure faster growth than the overall motion control market.

Prompt responses to tariff turbulence and our strategy in the U.S. market

In 2025, the market environment has remained highly volatile and unpredictable as the U.S. government has imposed a series of tariffs and repeatedly revised rates. Our response has been to reinforce our long-term strategy of manufacturing close to our customer base. Currently, 75% of the products we sell in the US are manufactured in our factory in Massachusetts. This differentiates us from competitors who only have a sales presence in the U.S. and import all their products. Our strategy minimizes tariff surcharges that we pass along and has strengthened relationships with our customers as they recognize the benefits of working with a U.S. manufacturer.

Focus on our Medium-Term Management Plan and markets with high growth potential

Our Medium-Term Management Plan centers around five strategic goals, with a focus on markets that are forecasted to have strong growth. These include applications for semiconductor capital equipment, medical equipment including surgical robots, and humanoid and other AI-enabled robots. We are strategically allocating resources to the fields projected to see future demand expansion. These markets are expected to grow at an accelerated pace over the coming decade with the development of AI technologies. Accordingly, we are making up-front investments to establish our competitive advantage in

the market. Our strategy to provide the industry's best value in terms of quality, cost, delivery, and service enables us to earn a premium price for our products. Customers' purchasing decisions are often based on value, not price. Our high-quality products and services continue to attract new business opportunities.

Technological innovation and differentiation in aerospace

To meet growing market needs, we are pursuing the development of integrated actuators and other new products. Our U.S. development team has created nine integrated actuators featuring the CANopen® interface. Building on this success, we released four new integrated actuators which use the EtherCAT® interface in the third quarter (July–September) of 2025. The benefits to our customers are greatly simplified wiring, space savings, and ease of commissioning. As the first company in the world to have certified integrated actuators, we are strengthening our competitive position in the market. Harmonic Drive LLC has manufactured more than 10,000 gears that have been launched into space. We provide our aerospace customers with lightweight, highly reliable solutions that leverage our strain wave gear technology. We have built sustainable competitive advantages in the rapidly growing aerospace market by establishing unique differentiating factors and delivering high-value-added products.



Harmonic Drive LLC
President and CEO

Douglas Olson

Initiatives for sustainability and social responsibility

Harmonic Drive strives to reduce environmental impact and contribute to the betterment of society. Our factory operates a building management system that minimizes energy consumption by using high-efficiency lighting, HVAC, and compressors. Simultaneously, a solar installation of more than 1,200 panels has been completed, which is expected to generate 720,000 kWh of energy per year, equivalent to a reduction of 484 metric tons of CO₂. As part of our contribution to local communities, we promote initiatives to fulfill our social responsibilities through employee volunteering and charitable donations, including continued support for St. Jude Children's Research Hospital. Fulfilling corporate social responsibilities is fundamental to enhancing our employees' pride and motivation and supporting our company's sustainable growth.



Interview with the Officer in Charge of Sustainability



Executive Officer
Head of Sustainability,
Corporate Planning, and Investor Relations
Makiko Ono

Basic Policy of Sustainability

As a technologies and skills-based organization that is pursuing Total Motion Control, the HDS Group aims to enhance corporate value and realize a sustainable society by contributing to technological innovation for the betterment of society. We intend to achieve these goals based on our Management Philosophy, which comprises four pillars: Respect for the Individual, A Meaningful Company, Coexistence and Co-Prosperity, and Contribute to Society.

By integrating material issues related to management strategies into our business activities, we will steadily advance sustainability management while establishing a group promotion framework that is consistent and effective.

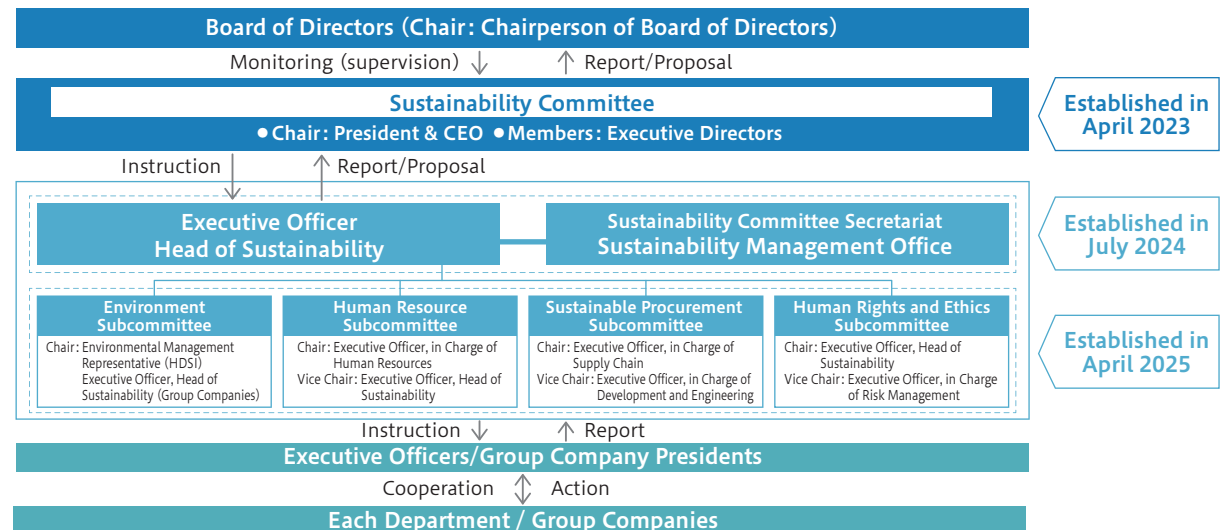
Q: Tell us what defines the HDS Group's sustainability management.

A: As described in the Basic Policy of Sustainability, our Group's sustainability management is defined as "contributing to technological innovation for the betterment of society" as a technologies and skills-based organization. The materiality goal of "developing new technologies and skills that coordinate with changes in the environment" is also aligned with this basic policy. Currently, in the physical AI market, which is attracting significant global attention, our Group's products are expected to play a crucial role. In particular, AI robots (our products offer the advantages of compactness, light weight, and high precision) provide solutions for social challenges, such as labor shortages and automating dangerous, dirty, and physically demanding work. Our active approach to these technological

innovations defines our Group's sustainability management.

We are also evolving into a more systematic and effective system this fiscal year to reduce GHG emissions from our Company and the supply chain and to address social issues. Specifically, in the 2024-2026 Medium-Term Management Plan, we are integrating our material issues, which were reviewed before it was formulated. At the same time, we are incorporating them into management programs across divisions to build a system for addressing them. Under our established framework, the president formulates the fiscal year's policy based on the Medium-Term Management Plan. Then each division formulates its own policy, which is ultimately implemented into management programs for each section. Each section sets goals in line with material issues, allowing each employee's goals to be managed accordingly. This enables individual employees to

● HDS Group Sustainability Promotion Framework



participate in sustainability management during the course of business. In FY2024, we saw this system integrated into the Company.

In addition, in FY2025, we established the following four subcommittees: (1) the environment, (2) human capital, (3) sustainable procurement, and (4) human rights and ethics, and these work in coordination with the Sustainability Committee. The subcommittee heads were appointed from among executive officers, and the initiatives have been progressing throughout the company. We also started rolling them out across our group companies and held a briefing for our subsidiaries in June. Going forward, we will advance group-wide initiatives while sharing their progress on a regular basis.

Promoting sustainability requires a considerable amount of management resources. Therefore, we will strategically prioritize our initiatives based on how they will help enhance corporate value.

Q:How do you monitor the progress of materiality initiatives?

A:Management's ability to identify where to strategically invest limited resources is essential for effectively advancing sustainability management. Our Group's policy is to optimize management resource allocation by carefully assessing cost effectiveness with the aim of enhancing corporate value in the long term.

The foundation of this framework is the Sustainability Committee and the four subcommittees. The consistency of management strategies with the activities of

subcommittees is first assessed by the Sustainability Committee before being further discussed at Executive Officer Meetings that are attended by all executive officers. These meetings are also attended by outside directors, whose views are reflected in our governance, as needed. In addressing external evaluation agencies, as requested by our customers and investors, the subcommittees are playing a central role based on their significance to our group, which is leading to improved evaluation results. This is also helping us track the progress of our sustainability management through discussions with stakeholders.

To quantitatively evaluate our progress on material issues, we believe it is crucial to establish KPIs for each measure. For example, to maximize our human capital value, promoting talent development and diversity is a priority, and we view them as sources of our competitive advantage, such as our technological innovation and value creation capabilities. Based on the belief that investing in intangible assets will lead to long-term profitability and sustainable growth, we are identifying relevant metrics. In addressing climate change, we are focusing on creating value throughout the lifecycle, especially in developing products that help reduce environmental impacts for customers. By strengthening our research and development capabilities, we aim to enhance our ability to adapt to environmental changes and technological competitiveness.

On the risk management front, we identify manufacturing locations subject to high flooding risk due

Interview with the Officer in Charge of Sustainability

to natural disasters and implement countermeasures. We have also started estimating the financial impact of identified risks. Going forward, in addition to deepening internal engagement through collaboration with the subcommittees, we will visualize the outcomes of measures corresponding to material issues and will further strengthen our monitoring system. Regarding themes attracting attention from our investors, such as securing human capital, improving technological capabilities, and enhancing competitive advantages, we will provide clear explanations from the perspective of investing in management capital in line with material issues. Simultaneously, we will continue to enhance our monitoring system. We will also advance the assessment of risks and opportunities affecting future cash flows.

Q:What challenges will you need to address for promoting sustainability?

A:One of our next challenges for promoting sustainability is how to reflect risks, such as climate change, human rights issues, and the sustainability of supply chains, into the group-wide risk management system. Since these risks directly translate into financial impacts, we will closely work with the risk management division to build an integrated control framework for management decisions.

Another important challenge is to establish a group-wide framework for promoting sustainability. Currently, we are identifying advanced initiatives and challenges across regions through hearings on the status of local responses, with a particular focus on data collection. With our Chinese and Korean subsidiaries, as is the case with our domestic subsidiaries, we share information through briefings and other means and have established collaboration frameworks.

Going forward, we will consolidate and analyze insights and information from across the globe that will then be processed by the Sustainability Committee, and we will build a unified and flexible framework that can be applied to the entire HDS Group. We believe that we can take a significant step forward toward higher corporate value by establishing a consistent and effective group-wide promotion system while respecting the culture, characteristics, and progress of each region.

• Key Discussions by the Sustainability Committee (FY2024)

Month	Details
June	Sustainability matters discussed in the securities report
September	- Overview of the initiative based on the FY2024 Sustainability Promotion Report and the challenges in FY2023 - Formulated the HDS Group Policies on Human Rights - Discussed climate transition plans toward achieving the 2025 net-zero emission targets
November	Board of directors' deliberations on human rights policies
March	Oversight of sustainability promotions in FY2024 and the FY2025 promotion plan



Efforts on Respect for Human Rights

■ Basic views

As a globally operating company, the HDS Group places the international obligation to respect human rights at the core of its management. While our commitment to human rights has long been embedded in our management philosophy and code of conduct, we took a further step by formulating the Harmonic Drive Systems Group Policies on Human Rights on November 20, 2024, to clearly define the guidelines for our human rights initiatives. Responsibility for these policies rest with the executive officer for the Sustainability Management Office.

Harmonic Drive Systems Group Policies on Human Rights

The Management Principles of the Harmonic Drive Systems Group comprises four pillars: Respect for the Individual, Creating a Meaningful Company, Coexistence and Co-prosperity, and Contribution to Society. To fulfill our obligations as a corporate enterprise in showing respect for human rights in accordance with our philosophy, we hereby establish these Harmonic Drive Systems Group Policies on Human Rights (hereinafter, the "Policies") in keeping with the United Nations Guiding Principles on Business and Human Rights, endorsed by the UN Human Rights Council in June 2011.

For more details, please visit our website.
<https://www.hds.co.jp/english/csr/human-rights/>



HDS Group's initiatives on human rights

- FY2004 • Established Code of Conduct
- FY2018 • Introduced an awareness program (e-learning) on harassment prevention
- FY2019 • Began operating the whistleblower system
- FY2022 • Established the Sustainable Procurement Policy which includes respect for human rights and disseminated the policy to the suppliers
- Established the Health Promotion Center and began support for employee mental health
- FY2023 • Introduced harassment prevention and communication training for managers and above
- FY2024 • Launched Sustainable Procurement SAQ for important suppliers

- Formulated HDS Group Policies on Human Rights
- Published the latest version of the Sustainable Procurement Guidelines (Ver.2.0)
- FY2025 • Conducted training sessions on business and human rights for executives
- Conducted human rights due diligence

■ Strengthening governance structure

The HDS Group Policies on Human Rights were formulated by the Sustainability Committee, chaired by the President and Representative Director, and approved by the Board of Directors. The Committee is responsible for implementing initiatives that promote respect for human rights. A governance framework is also in place under which the Board of Directors oversees compliance with the Policies on Human Rights.

Major human rights issues handled by the Sustainability Committee

- Promoting a better understanding of DE&I within the HDS Group
- Ensuring a vibrant and productive work environment, with a strict commitment to creating a harassment-free workplace
- Implementing sustainable procurement practices based on international human rights norms
- Conducting human rights due diligence and building a remedy mechanism

■ Human rights due diligence and remedial actions

In line with the United Nations Guiding Principles on Business and Human Rights, the HDS Group has established a human rights due diligence framework. This framework is designed to identify potential adverse human rights impacts associated with our business activities, implement preventive and mitigating measures, and take prompt remedial action should any impacts occur.

■ Addressing human rights issues in the supply chain

In October 2023, we established the HDS Group Sustainable Procurement Guidelines to address human rights issues not only within the Group but also

throughout our supply chain. These Guidelines serve as a code of conduct for our suppliers, clearly outlining expectations such as the prohibition of forced and child labor, elimination of discrimination and harassment, compliance with appropriate working hours and wages, respect for freedom of association and the right to collective bargaining, and robust health and safety management.

■ Education and awareness

Human rights education

We are committed to raising human rights awareness among employees through a phased approach to training and education. These efforts are intended to promote understanding of the HDS Group Policies on Human Rights and their relevance to daily work. In FY2024, we conducted human rights training sessions for the Development and Engineering Division and the Sales Division of HDSI, with a total of 161 participants.

We also ask our suppliers to understand and support the HDS Group Policies on Human Rights and agree to the Sustainable Procurement Guidelines, which include provisions on respecting human rights. Through these initiatives, we strive to promote respect for human rights across our entire supply chain.

Harassment education

Since FY2018, we have provided mandatory harassment training for all employees through e-learning programs. In addition, beginning in FY2023, we introduced in-person and online harassment prevention and communication training for managers and above, conducted by external instructors.

● Number of participants in HDSI programs to raise awareness of and educate on human rights issues (e.g., harassment prevention)

	FY2021	FY2022	FY2023	FY2024
Number of programs held	3	3	4	3
Number of participants (cumulative)	381	144	154	139

Efforts on Global Environment

■ Basic Policy on Global Environmental Initiatives

Deeply aware of our corporate social responsibility regarding the global environment, the HDS Group is committed to implementing global environmental protection policies. Through our business objective of pursuing total motion control, we provide society with superior technologies and services that will mitigate environmental destruction.

Environmental Policy

1. By assessing the environmental impact of all production processes from development to recovery and disposal, and by working to develop technologies that will act as a brake on environmental destruction, we create and provide products in harmony with the environment.
2. By observing laws and ordinances related to the environment, setting our own voluntary management targets, and reviewing our environmental action plans, we continue to raise our level of environmental management.
3. We aim to reduce the environmental impact of our products and activities through more efficient use of resources and energy and by reducing and recycling wastes and discharges.
4. We make sure our environmental policy is known to employees as well as to our affiliates and partners.
5. We take part in the environmental protection efforts of local communities and endeavor to coexist with them.

■ Environmental Management Organization

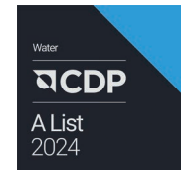
Based on our environmental policy, every fiscal year we set areas of focus and targets to be achieved by each division and develop a management program, thereby encouraging employees to carry out its own environmental actions and making operation of the environmental management system more efficient.

■ Measures to Address Water Security

In recent years, with droughts and large-scaled flooding stemming from global climate change, a growing population, changes in consumption patterns, prospective increase in demand for freshwater in line with economic growth, etc., the impact of water security on the HDS Group's business activities cannot be ignored. In Japan in particular, the potential impact is seen across all stages of procurement, production, and sales, including damage to production facilities caused by typhoons, heavy rains, and flooding, reduced production capacity, and effects of confusion within the value chain on logistics and sales. In addition, with the expansion and advancement of semiconductors and AI, the demand for large volumes of cooling water is increasing, and water security is thus being seen as a serious environmental issue that companies need to address along with climate change.

Since FY2022, the HDS Group has been making efforts to reduce water withdrawal and wastewater amounts by setting specific targets. Water risk analysis is also being conducted at each site using water risk assessment tools AQUEDUCT, provided by the World Resources Institute, and Flood Navigation System from the Ministry of Land, Infrastructure, Transport and Tourism, and steps taken for the identified risks.

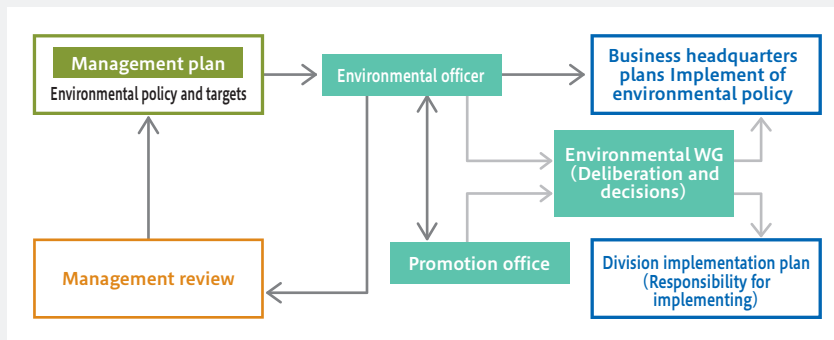
As a result, the HDS Group was recognized for its leadership in information transparency and performance in CDP 2024 Water Security and was selected as an "A List" company, the highest rating.



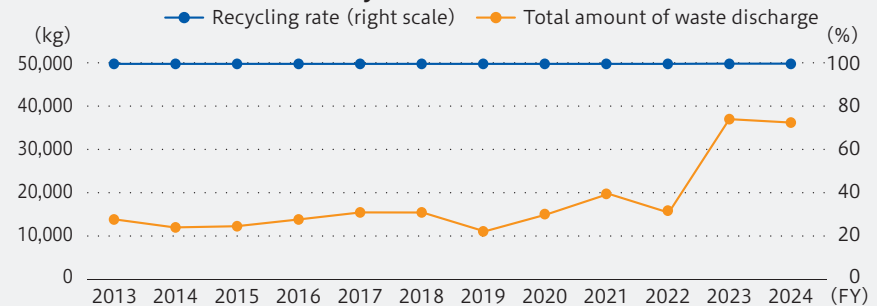
■ Reduction of Industrial Waste and Promotion of Recycling

The total amount of waste (intensity) in FY2024 was 36,183 kg, a 2.1% decrease compared to the previous year. The recycling rate declined by 0.1% from the previous fiscal year to 99.0%, achieving the annual target of a recycling rate of 99% or higher. (Coverage: Hotaka Factory, Harmonic Drive Systems)

● Environmental Management Organization chart



● Total amount of waste (intensity)



* Recyclable materials = scrap metal and chips, discarded motor parts, electrical wire scraps, electronic parts, office machines, development prototypes, etc.
Waste = wood chips, plastic waste, magnetic powder, etc.

Efforts on Climate Change

Information disclosure based on the TCFD Framework

The HDS Group recognizes climate change response as a critical management issue and has set a long-term goal of achieving net-zero GHG emissions by 2050. This initiative is led primarily by the Sustainability Committee.

1. Governance

The HDS Group's governance on climate change is incorporated into the governance for sustainability overall. For details, please refer to the HDS Group Sustainability Promotion System chart in the message from the Officer in Charge of Sustainability on pages 55 and 56, and the securities report for the fiscal year ended March 31, 2025.

2. Strategy

We identified risks and opportunities related to climate that could potentially affect the HDS Group's business, and then conducted scenario analyses proposed by TCFD in each of two hypothetical worlds: a scenario that has a significant impact on the policy transition, with the assumption of "holding the increase in temperature to below 1.5°C above pre-industrial-revolution levels," a target of Paris Agreement (1.5°C scenario); and another scenario that has a higher physical-risk without environmental regulations tightened (4.0°C scenario), after referring to multiple scenarios, which are published by International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC). In these scenarios, we analyzed the degree of impact and the probability of occurrence, based on the timeframe for the conceivable emergence of each risk and opportunity on a short-,

medium-, and long-term timeline. In addition, response strategies for each risk and opportunity are examined on both short-term and medium- to long-term time horizons. In addition to minimizing risks, we also focus on and convert opportunities to expand and create new business opportunities. Through these efforts, we aim to enhance the resilience of the Group and achieve sustainable growth under any climate change scenario.

In addition, for selected risks identified through scenario analyses, we conducted financial impact assessments. The estimated financial impact and the underlying calculation basis have been disclosed in the Annual Securities Report for the fiscal year ended March 31, 2025.

[HDSI website] Annual Securities Report for the fiscal year ended March 31, 2025



Climate-related risks, opportunities, and countermeasures identified across the value chain through scenario analyses (excerpt from the annual securities report)

Referenced scenarios: IEA NZE2050 (1.5°C scenario), IPCC RCP 8.5 (4.0°C scenario)

Timeline definitions: short-term 0-3 years, medium-term 3-10 years, long-term 10-30 years, extremely long-term 31 years and over

Scenario	Risk / Opportunity			Timeframe in which it may emerge	Probability of occurrence	Degree of impact	Strategy	
	Category	Factor	Impact on business (financial, nonfinancial)				Timeline	Key measures
1.5°C	Transition risks	Regulations	Tightening regulations	Increase in expenditure with carbon pricing for emissions (tax)	Medium-term	High	High	Short-term ● Assess the impact of carbon pricing (carbon tax) on the business and implement countermeasures
							Medium- to long-term	● Promote electrification and a shift to renewable energy to reduce absolute GHG emissions ● For facilities where electrification is difficult, promote fuel conversion to low-carbon alternatives (biomass and hydrogen, etc.)
	Opportunity	Resource efficiency	Spread of energy-saving technology	Reduced energy costs and lower burden of carbon taxes as a result of switch to low emission facilities	Medium-term	Medium	High	Short-term ● Conduct detailed analysis of the cost-effectiveness of GHG reduction measures and regularly review the Net Zero transition plan ● Introduce ICP (Internal Carbon Pricing) to visualize the economic benefits of energy-saving equipment investments and promote such investments
		Products and services	Spread of low-carbon technology	Increase in sales related to low-carbon products due to promotion of low-carbon trend in society	Medium-term	High	High	Medium- to long-term ● Utilize subsidy programs for energy-saving equipment investments to reduce initial costs and develop and sell products that meet needs
4.0°C	Physical risks	Acute	Increasing severity of natural disasters	Damage to operating sites, halt in operations, and lower production amounts occur due to more intense and frequent natural disasters	Short-term	Medium	Medium	Short-term ● Conduct disaster risk assessments for all domestic and overseas Group sites ● Review the BCPs for business sites and the entire Group, assuming natural disasters of the highest magnitude on record
								Medium- to long-term ● Develop alternative production plans in the event of damage to manufacturing sites ● Install flood prevention equipment ● Consider and implement relocation of business sites with high disaster risk or impact
		Chronic	Rising temperatures	Costs increase to add/replace air conditioning equipment at operating sites and their running costs increase due to rising temperatures	Medium-term	Medium	High	Short-term ● Introduce ICP (Internal Carbon Pricing) to visualize the economic advantages of energy-saving equipment investments and promote such investments
								Medium- to long-term ● Utilize subsidy programs for energy-saving equipment investments to reduce initial costs ● Reduce air conditioning costs by improving the efficiency of air conditioning systems and enhancing the thermal insulation performance of business sites
	Opportunity	Resilience	Disperse manufacturing sites	Gain greater trust from customers with transport and distribution more resilient to natural disasters by diversifying suppliers	Short-term	Low	High	Short-term ● Conduct risk assessments of suppliers and raw materials and consider alternative measures in the event of a disaster
								Medium- to long-term ● Mitigate risk through diversification of suppliers ● Promote diversification of suppliers to mitigate risk

Efforts on Climate Change**3. Risk Management**

HDSI has established a system to be able to identify, assess, and respond to risks and opportunities related to climate change in accordance with the “Crisis and Risk Management Regulations.” Risks are categorized into company-wide risks and risks by business process, with risk assessment conducted once a year.

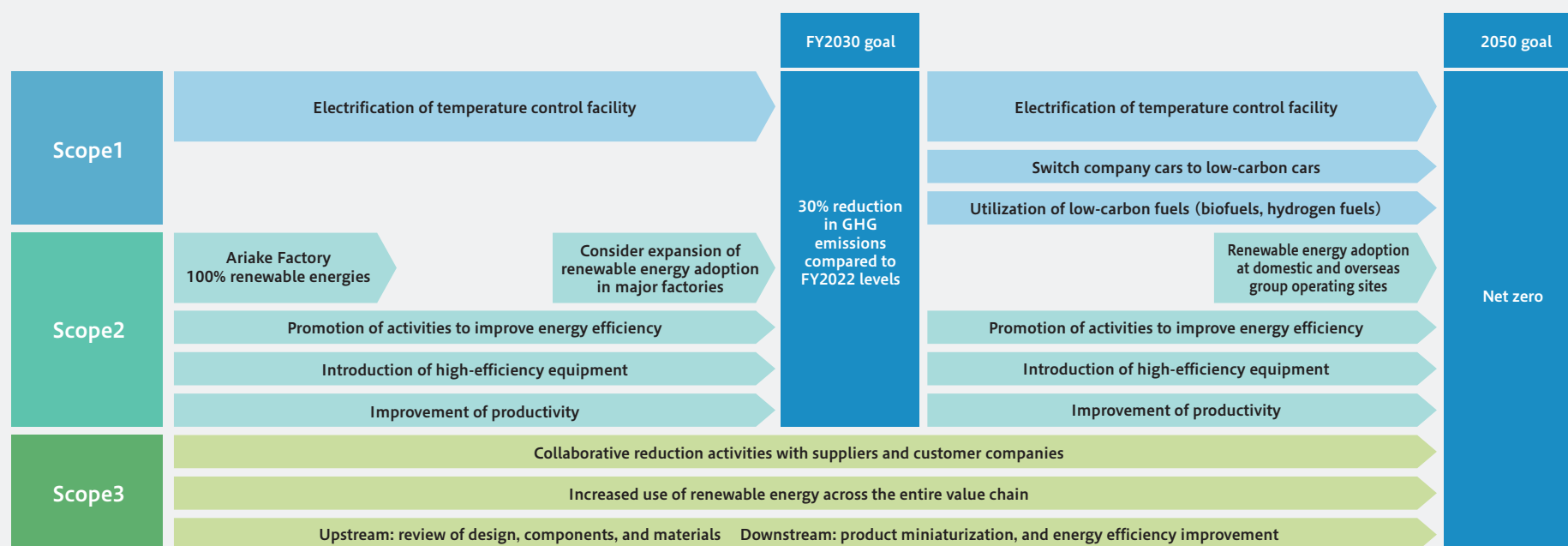
The Executive Officer in charge of Corporate Planning and the Corporate Planning Division grasp, analyze, and assess company-wide risks, while each division extracts and identifies risks related to its business processes. The General Manager of the Risk Management Division conducts risk assessments on a short-, medium-, and long-term timeline from the perspectives of frequency and potential scale of damage, and formulates policies from the viewpoints of legal compliance and the

protection of human life. In addition, a comprehensive risk assessment is conducted by integrating these evaluations, and the Executive Officer in charge of Risk Management prioritizes the risks based on the assessment results. The President and CEO then reviews and approves the content. Subsequently, each division sets its own risk management targets, and division leaders determine appropriate responses—such as avoidance, acceptance, mitigation, or transfer—according to the nature of each risk, and implement corresponding mitigation measures. The Executive Officer in charge of Risk Management reviews the progress of these activities annually, and based on this review, the President and CEO sets the policy for the following fiscal year, which is then communicated to the divisions.

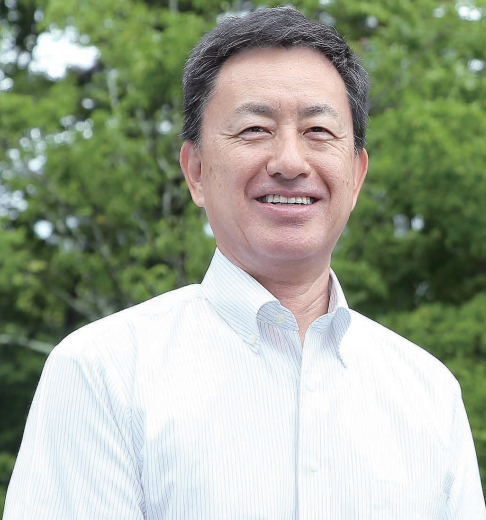
4. Metrics and Targets

The HDS Group has set “Net Zero GHG emissions by 2050 (Scope 1, 2, and 3)” as its long-term GHG emission reduction target. In addition, the Group has set “a 30% reduction in GHG emissions by FY2030 (Scope 1 + 2, compared to FY2022 levels)” as a milestone (interim goal) toward achieving the Net Zero target and has developed a climate transition plan (reduction roadmap).

Furthermore, to ensure accurate progress tracking toward achieving the goals and to enhance the reliability of disclosed information, the Group conducts third-party verification of GHG emission data for Scope 1 and 2 (consolidated) as well as Scope 3 Categories 4, 9, and 11 (domestic consolidated).

Climate transition plan (roadmap) to achieve Net Zero by 2050

Interview with the Officer in Charge of Supply Chains



Managing Executive Officer
General Manager of Supply Chain
Minoru Asano

To enhance the sustainability of the entire supply chain, we conduct self-assessments (SAQ) for our major suppliers based on our Sustainable Procurement Policy.

Promoting awareness of the Sustainable Procurement Policy and visualizing its compliance status

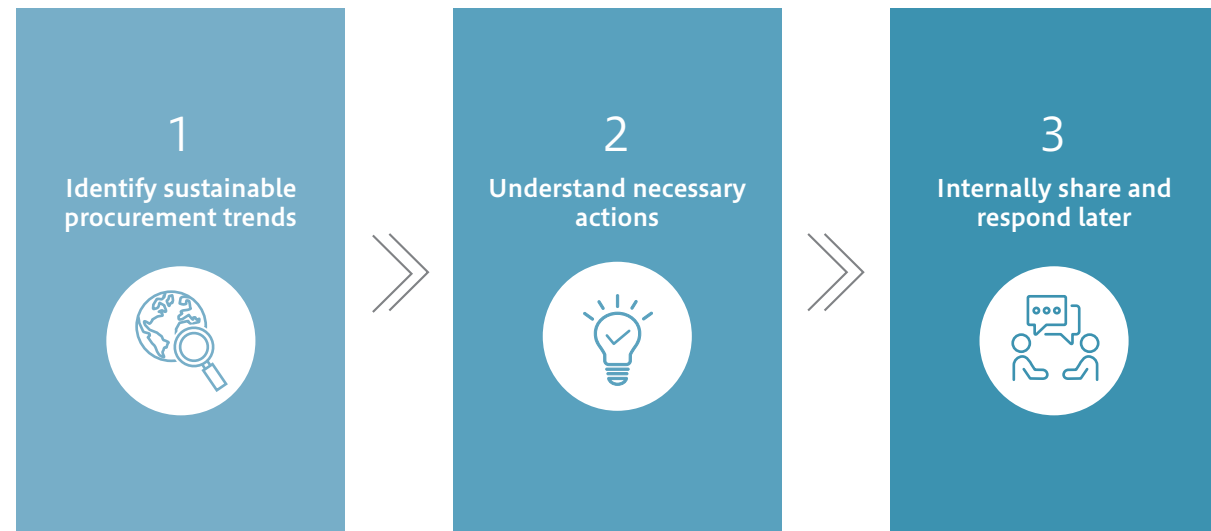
Q: How are you promoting awareness of your Sustainable Procurement Policy among suppliers and monitoring their compliance status?

A: To embed and establish our Sustainable Procurement Policy, we began a training program for our partners in FY2022. The first session, called “HDS Cooperative Association Training,” took place in October 2022, convening participants from 32 companies. In FY2023, we held a similar training session with 29 participating companies. In FY2024, we expanded our efforts by conducting a “Sustainability Training Session” for 38 companies.

To identify the response status among our suppliers, we surveyed them during the first training session. At subsequent briefings, we distribute our procurement guidelines and ask participants to submit confirmation letters. In FY2024, we expanded the scope of companies required to submit confirmation letters to 107 companies. As of the end of June 2025, the collection rate is 60%.

For 21 suppliers that handle high-risk materials, including conflict minerals, we conducted SAQ (a self-assessment questionnaire) to visualize risks and monitor their response status. We will continue conducting SAQ in FY2025 and onward to strengthen the system for responsible procurement.

● Sustainability Training Program for suppliers (conducted in FY2024) (excerpts)



Interview with the Officer in Charge of Supply Chains

Assessing risks through self-assessments and taking actions

Q: Please tell us about the purpose and results of the supplier self-assessment (SAQ), as well as how you plan to address them.

A: To enhance the sustainability of the entire supply chain, we conduct self-assessments (SAQ) for suppliers handling high-risk materials based on our Sustainable Procurement Policy. In FY2024, we conducted the SAQ for 21 companies. The collection rate was 100%, with about 70% of the companies passing the assessment. Meanwhile, for suppliers requiring improvement requests, we individually notify them of the necessary improvements for each evaluation category, including governance, human rights, the environment, and supplier management, and we verify their corrective actions within a specified timeframe.

In particular, ensuring upstream traceability concerning conflict minerals and conducting

assessments of human rights risks have emerged as common challenges for many suppliers. For these challenges, we ask them to work toward achieving Grade A in the medium term while continuing to support their efforts through supplier audits. Furthermore, in the long term, we plan to expand the target scope for SAQ to about 160 primary suppliers.

Measures for human rights due diligence and responsible mineral procurement

Q: Tell us about your initiatives for human rights due diligence and responsible mineral procurement.

A: To promote responsible mineral procurement, our company particularly encourages our electronics components suppliers to utilize the CMRT (Conflict Minerals Reporting Template) format as part of the efforts to identify risks and ensure traceability. In addition, over the past three years, we have been asking our suppliers to create supply chain charts to

identify and visualize upstream companies.

To address human rights risks, we will gradually roll out our ongoing internal initiatives for human rights due diligence across our suppliers. Through hearings with our suppliers and other means, we will identify their situations, and we will implement necessary measures based on their responses to SAQ (the self-assessment questionnaire).

In addition, we confirm the implementation status of grievance handling and remediation systems through the SAQ. We also help suppliers lacking adequate frameworks to implement whistleblowing systems and operate them. Through these initiatives, we aim to enhance respect for human rights and transparency throughout the supply chain.

● FY2024 SAQ assessment results (21 major suppliers)

	Breakdown
Grade A (Pass)	29%
Grade B (Pass)	38%
Grade C (Improvement Requested)	24%
Grade D (Improvement Requested)	9%

● Priority initiatives for sustainable procurement (FY2025 plan)**1. Build a monitoring system for critical sustainability risks within the supply chain**

- Select key suppliers to monitor
- Improve the collection rate of confirmation letters related to the Sustainable Procurement Guidelines
- Improve the collection rate of the self-assessment questionnaire (SAQ), and create the supplier risk evaluation report

2. Assess initial risks related to conflict minerals, and identify high risk suppliers

- Improve the collection rate for the conflict minerals survey
- Create a supplier risk evaluation report regarding conflict minerals

3. Conduct training sessions on sustainable procurement

- Continue conducting training sessions for suppliers as part of supplier engagement efforts
- Educate our purchase personnel, and improve the training completion rate among them

Interview with the Officer in Charge of Supply Chains

Collaborating to reduce GHG emissions (Scope 3, Categories 1 and 4)

Q: Tell us about how you are collaborating with suppliers to reduce GHG emissions (Scope 3, Categories 1 and 4) and your future plans.

A: To achieve our Group's net-zero targets, it is essential to reduce the GHG emissions attributable to procured products classified as Scope 3, especially those that fall under Category 1. Currently, many suppliers have not sufficiently identified specific emission figures, but we will ask them to create numerical data to visualize their emissions. In addition, regarding GHG emissions from upstream transportation (Scope 3, Category 4), we are considering obtaining primary data from our major suppliers.

Furthermore, we are encouraging our suppliers planning to update their facilities to shift to energy-saving facilities with the aim of raising awareness for reducing GHG emissions.

Simultaneously, we are currently examining the effectiveness of GHG emissions calculation software with the expectation of rolling it out across our suppliers. Through these initiatives, we will accelerate the promotion of decarbonization and the reduction of environmental impacts throughout the supply chain.

Adapting to geopolitical changes and strengthening supply chain management

Q: As geopolitical risks increase, how are you approaching procurement strategies and supply chain management?

A: In response to the recently increasing geopolitical risks, our group is strengthening resilience throughout its supply chain. So far, the direct impact of the tariff policy has been limited, but increasing material prices and energy costs have raised total procurement costs. In particular, for electronic components containing rare earths, the impact of supply restrictions has become evident, posing an ongoing challenge for procurement stability. Therefore, in addition to diversifying procurement risks by promoting multi-supplier procurement, we are currently considering alternative technologies, including developing non-rare-earth magnets in cooperation with the development section.

We are also promoting global responses by strengthening communication with the procurement sections across international subsidiaries and facilitating mutual sharing of raw materials, among other measures. These approaches are determined at Executive Officer Meetings based on analyses and proposals from the Supply Chain Division. We will continue to maintain a structure that can respond rapidly to changes in the external environment with the aim of achieving stable supply and cost optimization.

The role that the Supply Chain Division plays in achieving the Medium-Term Management Plan

Q: To achieve the Medium-term Management Plan, what challenges is the Supply Chain Division tackling?

A: To achieve the Medium-term Management Plan, the Supply Chain Division is tackling three challenges. The first challenge is to improve the quality of purchased components. While collaborating with the quality assurance section, we aim to eliminate non-conforming delivered items and enhance quality standards by collaborating with suppliers.

The second challenge is to build a procurement system for our mechatronics business. Following the transfer of the production function for this business, which is viewed as a growth segment, to Harmonic Winbel, establishing a robust material procurement system at the company has become an urgent priority. As part of our efforts to build a foundation for stable business expansion, we are focusing on redesigning supply chain management.

The third challenge is to promote cost optimization. As material prices continue to increase, we establish reasonable KPIs each year and implement ongoing improvement activities to balance cost reductions and stable procurement. These policies and their progress are shared with other sections at Business Process Innovation Meeting sessions led by the Corporate Planning Division. The entire company is addressing these challenges and working toward the goals by collaborating with the quality assurance, development, manufacturing, and sales sections.

Sustainable Procurement Policy

1. Fair and Equitable Transactions
2. Compliance with Laws and Social Norms
3. Respect for Human Rights and Work Environment
4. Consideration for the Global Environment
5. Coexistence and Co-Prosperity with Suppliers

[HDSI website]
Sustainable
Procurement Policy



Interview with the Officer in Charge of Human Resources



Executive Officer
General Manager of Human Resources and
Administration Division

Osamu Asakura

Type of individuals sought by the HDS Group

1. People who think for themselves and act with the ambition to take on new challenges
2. People who act with the spirit of cooperation needed in an organization
3. People who are richly individual and draw on their creativity
4. People who correctly see the direction of environmental changes and can adapt to them
5. People who possess cultural and human breadth

To enhance the effectiveness of human capital management, we quantitatively and qualitatively assess employees' sense of purpose and motivation and strengthen initiatives to enhance their engagement.

Q: Tell us about your current challenges in fostering an encouraging corporate culture and transforming employee behaviors and your initiatives for reforming systems and culture.

A: Since its inception, our company has directly addressed the challenges raised by our customers and provided solutions through our proprietary technologies, thereby sustaining our growth. However, with emerging competitors and diversifying customer needs, the ability to autonomously identify challenges and take necessary actions is required more than ever.

To address these situations, we view fostering a challenge-friendly culture as a priority measure in our talent strategy and are promoting various initiatives. First, we have begun reforming our personnel system and are currently building a new framework that clearly positions “willingness to take on challenges” as a core evaluation criterion and links it directly to compensation packages. We have implemented evaluator training for managers this fiscal year ahead of the system reform, focusing on establishing goals and enhancing the quality of feedback.

We implemented an internal recruitment system in the previous fiscal year and are expanding opportunities for employees to proactively take on new roles and challenges. Departments with open positions are required to share job descriptions so that anyone can voluntarily apply for career opportunities of their choice. We will build a corporate culture where employees can express their interest in new roles more casually to encourage autonomous career development.

Furthermore, we are working to improve the compensation of specialists. We are designing a system that acknowledges efforts to pursue advanced expertise and technology development and emphasizes career paths toward non-management positions. By establishing an environment where personnel achieving outstanding results in the research and development and product

technology fields receive commensurate recognition and compensation, we will strengthen our technological foundation and create innovations.

Q: Tell us how you are approaching and progressing human capital material issues.

A: Considering the maximization of human capital value as the core approach to improving corporate value in the medium to long term, we are working on the following four key measures:

- (1) Provide a safe and secure work environment
- (2) Promote professional development
- (3) Develop personnel systems and work styles that promote diversity
- (4) Develop a corporate culture and environment that encourage employees to take on challenges

We are advancing these key measures by designing and embedding systems in the workplace.

(1) We emphasize eliminating occupational disasters and ensuring psychological safety to provide a safe and secure work environment. Challenges and innovations will not emerge without a workplace atmosphere that encourages employees to freely express their views and will, even if a system is in place. We are focusing on improving psychological safety by using the internal recruitment system and enhancing the quality of dialogues between supervisors and team members.

(2) To promote professional development, we are building a three-tier talent development system that accommodates different career stages to develop personnel embodying our management philosophy. In particular, we are enhancing training programs on technologies and skills to elevate field capabilities and deepen expertise.

Interview with the Officer in Charge of Human Resources

(3) To develop personnel systems and work styles that promote diversity, we aim to establish an inclusive work environment by embedding remote work and other flexible work styles into systems, promoting the employment of people with disabilities, among other initiatives. Male employees taking childcare leave is steadily becoming the norm, demonstrating quantitative progress with an uptake rate of 85.7% and an average duration of 57 days in FY2024.

● Childcare leave uptake rate among male employees

	Childcare leave uptake rate (%)	Average duration (days)
FY2022	52.9%	44 days
FY2023	81.8%	36 days
FY2024	85.7%	57 days

(4) To develop a corporate culture and environment that encourage employees to take on challenges, we are building an encouraging environment by developing new personnel systems and using the internal recruitment system, as mentioned in my response to your previous question.

We track the progress and effects of these initiatives through quantitative indicators (e.g., key performance indicators) and qualitative evaluation. Using the employee engagement survey implemented in FY2024, we regularly review how much employees trust the organization and how happy they are about our measures.

Q:How do you implement your talent portfolio strategy in line with your long-term vision?

A:To achieve our long-term vision of becoming the “best provider of total motion control in harmony with the future,” we are building a talent portfolio in line with management strategies. In particular, we view the following two areas of people management as the core areas to strengthen:

The first one is talent with advanced expertise in the motion control field. To proactively identify potential

customer needs and address them through our proprietary technological capabilities, expanding the pool of specialists that can deliver competitive advantages is essential. Therefore, we are actively hiring both new graduates and midcareer professionals while focusing on reskilling and upskilling existing employees.

The second one is to expand the talent pool for global collaboration. Our Group must further strengthen its collaboration with its international subsidiaries across Europe and Asia and optimize functions, such as technology development, procurement, production, and corporate management, group-wide. Under these circumstances, our competitiveness depends on having an expansive pool of talent that will lead field operations while assuming a global perspective beyond individual companies.

Q:Tell us how you discover and train human resources that will shape your future.

A:Previously, career advancement mostly depended on experience and seniority. Today, however, there is an increasing demand for self-driven talent or personnel capable of flexibly capturing environmental changes, autonomously learning, and leading transformation.

With this in mind, our company is developing a talent management framework for accelerating the discovery and development of future leaders. Specifically, under the new personnel system, we have clarified the promotion criteria, which were previously operated flexibly. We have previously appointed employees in their early 30s to management positions, but going forward, we will clearly indicate the minimum age for promotion eligibility and fairly support career advancement and promotion based on merit and motivation.



Interview with the Officer in Charge of Human Resources

Q:How do you revitalize the organization through the employee engagement survey?

A:To enhance the effectiveness of human capital management, we quantitatively and qualitatively assess employees' sense of purpose and motivation and strengthen initiatives to enhance their engagement. In FY2024, we conducted a company-wide employee engagement survey for the first time to visualize the organization's current status and issues. Two main issues have emerged through the survey. The first one is that employees do not receive sufficient feedback and recognition from their supervisors. The second one is that it is unclear to employees how their jobs and organization's achievements contribute to the company's goals and ultimately to social challenges. In response to these issues, the survey results were shared with employees in management positions, and evaluator training was conducted. The training was conducted in a group discussion format, where participants exchanged views on how supervisors' support and clear expectations

directly lead to enhanced engagement.

We will incorporate these insights into the ongoing personnel system reform and improve systems by reviewing the evaluation criteria and strengthening feedback frameworks. By enhancing the transparency and credibility of assessments, we aim to enhance the sense of purpose and organizational performance of employees.

Q:What are your thoughts on the relationship between the material challenge of maximizing the value of human capital and generating a cash flow in the long run?

A:To build advanced technological and field capabilities as business foundations, developing talent with a long-term perspective is essential. Although quantifying the short-term growth of skilled workers and specialists is difficult, their ability to create value remarkably improves through certain years of experience and continued learning. Therefore, we focus on developing talent to retain skills and drive

growth eventually while hiring midcareer professionals who are ready to contribute.

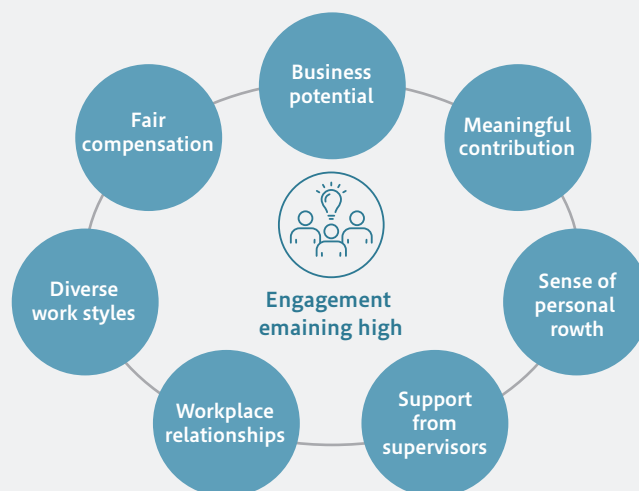
These strategies are based on high engagement and employee retention. Although we have not established numerical targets for turnover rates, we closely monitor them as key indicators of organizational soundness. The retention rate among employees who have been with the Company for three years has remained extremely high compared with industry standards. We believe that this high retention rate will eventually contribute to our financial performance, with employees' accumulated expertise and knowledge helping to enhance the organizational capabilities and product and service quality.

We would like to further enhance the effectiveness of human capital management. To this end, we will visualize how investment in human capital helps employees demonstrate and improves employee retention to ultimately elevate corporate profitability and shareholder value, and we will build and manage a continuous improvement cycle.

Employee engagement survey

Survey period
December 2024 to January 2025

Response status
474 employees
(response rate: 71.7%)

**• Three-year retention rate (new graduate hires)**

	Retention rate (%)	Number of applicable hires
FY2022	88.9%	9
FY2023	91.7%	12
FY2024	100%	13

Message from the Officer in Charge of Risk Management



Executive Officer
General Manager of Risk Management
Michiya Yashiro

Rather than viewing risks as threats, we assess and examine them as obstacles to our strategies and determine our countermeasures.

The HDS Group's risk management and compliance promotion frameworks

The HDS Group is enhancing its risk management and compliance frameworks as foundations for higher corporate value. The Risk Management Division, which leads such initiatives, systematically works with the legal department to promote the development of regulations, planning of activity policies, training support, and legal compliance.

Each department assesses its own risks and explores and develops countermeasures based on risk attributes while working closely with other organizations, including the Risk Management Division, Human Resources and Administration Division, Safety and Health Committee, Corporate Planning Division, ICT Promotion Office, and Public Relations Office. We work closely with our major subsidiaries daily. In particular, we strive to manage risks through integrated efforts as an entire group, including our international subsidiaries, regarding product responsibility, security, and trade management.

In the event of a serious crisis, we establish an emergency task force with the Risk Management Division and the Human Resources and Administration Division serving as the Secretariat to take quick actions systematically.

Regarding compliance, we are enhancing employee awareness by developing internal regulations and conducting educational and awareness activities. Our joint training program with the Human Resources and Administration Division plays a key role. Additionally, we seek various opinions and advice from internal and external parties to ensure the effectiveness of these initiatives and continuously review and enhance our systems in line with the changing risk environment.

Process for identifying critical risks and those in FY2025

We conduct company-wide risk assessments every March in coordination with the business plan for the following fiscal year to manage risks in line with management strategies.

Rather than viewing risks as threats, we assess and examine them as obstacles to our strategies and determine our countermeasures. Each division identifies risks and quantitatively and qualitatively assesses them. The Risk Management Division then analyzes group-wide priorities and effects, and critical risks are finalized through discussions at Executive Officer Meetings.

In FY2025, we identified the following critical risks: (1) Trade risks due to changes in U.S. tariff policies, (2) Geopolitical risks in Ukraine and the Middle East, and (3) Natural disaster risks, such as earthquakes, heavy rains, and typhoons. As countermeasures, we are not only reactively addressing them but also emphasizing preventive and predictive actions and are promoting effective risk management as an entire group.

Positioning of the whistleblowing system and initiatives to enhance its effectiveness

We view our whistleblowing system as a detection function for signs of critical risks rather than a mere channel for reporting issues. Employee reports contain important signals, such as organizational issues and concerns that something is amiss. We accept and analyze them carefully and work closely with relevant departments to correct and improve situations. By doing so, we implement proactive measures to mitigate future risks. Anonymous reporting allows whistleblowers to speak up comfortably without worrying about their positions or relationships, which makes the method effective for collecting critical information at the early stages of a case. Meanwhile, named reports facilitate investigation, leading to effective measures. Our company has a system for sincerely and promptly responding to both named and anonymous reports while respecting the choices of whistleblowers. We have also clearly documented protections for whistleblowers and prohibitions of retaliatory treatment and are continuously enhancing the credibility of the system by involving outside officers and incorporating feedback.

Compliance & Risk Management

■ Compliance

Fundamental stance for business activities

As the fundamental stance for business activities, the HDS Group strives to enhance customer satisfaction and pursue profit through business activities grounded in fair and legal competition. In addition, in executing business activities, everyone working at the Group recognizes the need to fulfill corporate social responsibility, observes laws and regulations, and respects trade customs, social norms, and business ethics. Furthermore, the Group respects the individual rights of each employee and endeavors to facilitate the realization of their cultural aspirations as well as makes its best effort to achieve coexistence and co-prosperity with everybody who is involved with the Group.

Compliance education

The HDS Group provides various compliance education programs, centering on online training, to everyone working at the Group so as to enhance employees' understanding of compliance

Furthermore, everyone working at the Group is required to carry a pocket-size booklet that contains the Management Philosophy, Basic Policy of Sustainability, the Charter of Corporate Behavior, the Code of Conduct, and Crisis Management—Code of Conduct in the Event of Crisis.

Measures to prevent insider trading

In order to prevent insider trading, the HDS Group clearly specifies procedures for buying/selling the Company's stocks and provides education on insider trading control to everyone working at the HDS Group. When an employee wishes to buy/sell the Company's stocks, he/she is obligated to do so by the specified method within the specified period in accordance with the Company's Rules on Insider Trading Control.

Operation of whistleblower system

In accordance with the provision on the operations of the whistleblowing system, the HDS Group has established and operates both internal and external (via

external specialists and attorneys) whistleblowing contact points for all employees, including temporary employees, temporary staff, part-time employees, seasonal staff, and freelancers. This contact point accepts whistleblowing not only on compliance violations, but also on human rights issues such as harassments. The internal investigative committee investigates the whistleblowing cases and handles them swiftly and appropriately. In addition, the provision on the operations of the whistleblowing system strictly stipulates that whistleblowers will not face dismissal or any other adverse treatment, and their personal information will remain confidential. The Board of Directors monitors and supervises the effectiveness of the whistleblowing system. This provision is reviewed periodically in response to legal amendments, societal demands, and changes in the external environment.

● Transition in the number of whistleblowing cases

	FY2022	FY2023	FY2024
Number of whistleblowing cases	21	35	78

*Consolidated basis from FY2023

Monitoring of Compliance Status

The Risk Management Division, which reports to the President, Representative Director, periodically inspects and audits the compliance status, and also maintains and improves various compliance systems.

In addition, the President's Management Review in which the President directly reviews the situation of operation execution by each Executive Officer twice a year includes a mechanism for the President to check with each Executive Officer the compliance status as well as maintenance and improvement of compliance systems.

■ Risk management

Fundamental approach and preparedness for risk management and crisis response

The HDS Group defines risks as events that may hinder

the achievement of business objectives, and situations that have significant adverse impact on the Group's management, including natural disasters, as crises. In executing business, the Group strives to implement risk management and crisis response in a safe and responsible manner. We are committed to continuously minimizing damages caused by the occurrence of risks and crises. In the event that risks related to corporate management and crises occur, our fundamental approach prioritizes the avoidance of harm to human life and physical well-being above all else, followed by actions to minimize the negative impact on the company. The Charter of Corporate Behavior states details of this risk management and the Code of Conduct specifies specific action guidelines. Furthermore, for crises, it is stipulated that all actions must follow the Crisis Management—Code of Conduct in the Event of Crisis.

Information security measures

In order to ensure compliance with laws, regulations, and other rules concerning information security and to respond to cyberattacks, the HDS Group provides education designed to raise the awareness of all employees working at the Group regarding information security. The information security education is conducted twice a year in the form of responses to a questionnaire, and the results are notified to the entire company.

Crisis Management System

In order to deal with any crisis in a secure and responsible manner in the event of an emergency, such as a large-scale disaster, the HDS Group has established the Crisis Management—Code of Conduct in the Event of Crisis and endeavors to develop and maintain its crisis management systems. Furthermore, in order to minimize the impact on business and to fulfill our responsibility of supplying products and services to customers, the subsidiaries in the U.S., Germany, and South Korea have also developed their systems and work in collaboration to maintain these frameworks.

Dialogue Between an Institutional Investor and Outside Directors

For continuous corporate value creation, the HDS Group is working to enhance the effectiveness of governance and improve profitability. As part of these efforts, we invited Mr. Zuhair Khan of UBP Investments Co., Ltd. to exchange views with the Group's five Outside Directors. They engaged in future-oriented dialogue from both company and investor perspectives, discussing topics such as business portfolio strategies, investment decisions considering capital costs, the remuneration system for the management team, and the diversity of the Board of Directors.



Kazuhiko Hayashi
Independent Outside
Director

Masanobu Nakamura
Independent Outside
Director (Member of the
Nomination and
Remuneration Advisory
Committee)

Haruhiko Yoshida
Independent Outside
Director (Chairperson
of the Nomination and
Remuneration
Advisory Committee)

Zuhair Khan
UBP Investments Co., Ltd.

Joined UBP Investments in 2019 as a portfolio manager focused on governance at Japanese companies. Before UBP, he was the Head of Research and Japan Strategist at a U.S. securities firm. Backed by his investigation and analysis of corporate governance at Japanese companies, his products gained wide recognition among institutional investors worldwide.

Kaeko Kitamoto
Independent Outside
Director

Yoshio Fukuda
Independent Outside
Director

Dialogue Between an Institutional Investor and Outside Directors

Potential markets and evaluation of their financial viability

Khan (institutional investor): Your company follows a high-mix, low-volume production business model. In that case, I assume that sales per customer are rather modest. Could you share your views on the size of your markets and their profitability?

Yoshida (Outside Director): This high-mix, low-volume production business model allows us to make the most of our technical expertise and skills. Currently, our revenue is primarily derived from three fields: industrial robots, semiconductor manufacturing equipment, and automotive applications. Some newer fields, such as aerospace and medical equipment, still generate relatively modest sales. However, products in these domains must meet extremely high levels of accuracy, durability, and performance under demanding usage environments. Refining our technology in these areas underpins our competitive edge.

Therefore, we believe that pursuing opportunities in a diverse range of markets is essential to sustain long-term growth.



Fukuda (Outside Director): In business domains other than automotive applications, as you correctly pointed out, we pursue a business model of “producing a large variety of products in small quantities.” Our corporate mission is “to contribute to innovation in the society by our motion control technology.”

To realize this, our fundamental approach is to enhance corporate value by “multiplying” applications, products, customers, development, and production—creating synergies greater than the sum of

their parts. Some transactions are in small quantities but fetch high margins. From my personal experience in the textile industry, I know that judging a business’s growth potential solely by market size can be misleading.

Khan: As applications of your products continue to expand, I imagine that your product portfolio will become further segmented. What discussions have the Board of Directors had regarding the selection and concentration of resources in your speed reducer business, including precision planetary speed reducers?

Fukuda: We ensure strict profitability control for each product. Except during the development stage, we never keep continuously loss-making businesses in our portfolio without purpose. Precision planetary speed reducers are no exception. The Board of Directors closely monitors how the executive side is working to improve their financial viability.

Integration and the monitoring system of Group companies

Khan: I believe that there is an increasing need to integrate the Group management structure and enhance its efficiency. How does the Board assess and monitor this need?

Yoshida: With the acquisition of 100% ownership of a German company in 2017, we established a “tripolar structure” of Japan, the U.S., and Germany for manufacturing. Since then, we have standardized design, production, and quality management operations, enabling all our sites to supply uniform quality products.

That said, many issues remain in terms of integrated management strategies. Looking ahead, we plan to establish an offshore value chain by shaping a new business model under a “quadrupolar structure,” which will also include China.

Khan: What about the integration of the IT system and the accounting system? I believe that this is a key infrastructure for monitoring the Group.

Kitamoto (Outside Director): Given the business scale of overseas subsidiaries, we do not believe that full-scale integration of the accounting system is absolutely necessary at this point. However, the Head Office’s monitoring function should be strengthened. As part of this initiative, we are working to expand corporate divisions and the internal audit structure.



Hayashi (Outside Director): Considering the size of the Head Office, it may not be realistic to leap straight into establishing global cooperation. That said, we are making steady, if gradual, progress in this direction. Last year, we began inviting the presidents of our subsidiaries in the U.S., Germany, and China to participate in Board meetings.



Fukuda: Personally, I opposed the idea of the Head Office in Japan micromanaging overseas subsidiaries. Yet the Head Office has a mandate to realize total optimization of the Group through resource allocation. As such, I believe that we should consider unifying fiscal year ends and accounting standards.

Dialogue Between an Institutional Investor and Outside Directors

Investment decisions and pursuit of capital efficiency

Khan: Compared with Western peers, Japanese companies appear to lack IT investments that enable real-time monitoring of business processes across the Group. If financial data from Group companies can only be monitored on a monthly basis, the management team cannot make prompt decisions, which in turn increases capital costs.

Since 2018, you have made considerable investments to increase your production capacity. Yet factory utilization rates have been sluggish recently, which is affecting your profit margins. Could you tell me about the Board's decision-making process on such large-scale capital investments?

Yoshida: As you correctly noted, we are seeing a major discrepancy between production capacity and demand, and the decline in utilization rates has become a critical issue.

In light of the considerable inconvenience caused to our customers when we were unable to meet the rapid increase in orders (2017–2018), we took the step of expanding our capacity and workforce.

However, coupled with changes in the Chinese market, this increase resulted in excess inventories. The Board of Directors deeply reflect on the failure to make investment decisions based on accurate demand forecasting.

Nakamura (Outside Director): At the time, we lacked the culture of carefully considering capital costs and hurdle rates when making investment decisions. Because our financial base was extremely strong at the time, we were able to perform large-scale capital investments, acquire full ownership of the German subsidiary, and pursue other projects without overstretching ourselves financially.

Moving forward, as the needs evolve in emerging markets, such as those for humanoid robots, we expect the business environment to enter a new stage. Therefore, we must prepare for upcoming growth opportunities.

Approaches to capital efficiency and growth investments

Khan: We are not particularly focused on short-term results. What matters to us are your proprietary technical expertise and the profitability that it supports. We appreciate your robust financial base, but how you enhance capital efficiency is equally important.

Fukuda: We believe that there are areas requiring proactive investment, such as advancing design and production processes through AI and digital transformation (DX), and developing a globally integrated IT system.

We also recognize the importance of monitoring the outcomes of large-scale investments. The speed it takes for us to correct our course when actual outcomes differ from initial assumptions. This is a critical factor in determining investment returns.

Nakamura: With recent advances in AI and other technologies, innovation has accelerated dramatically. For us, this means a broader range of growth investment options beyond simply expanding production capacity.

To respond to such changes with agility, we must maximize our current financial strength. In other words, we must remain flexible to avoid missing opportunities.



Khan: Mr. Hayashi, given your long career as an engineer, could you share your thoughts on the Company's cost control and R&D efforts?

Hayashi: When we once held a dominant market share, our products sold well regardless of price. Partly because of this, there was little incentive to reduce costs, which hindered the development of a strong cost-consciousness. It is my understanding that the Company has begun making serious efforts to cut costs in recent years.

As for R&D, our primary focus is on how we can add value to the mechatronics domain, which includes software and hardware.

I have experience working for an automobile manufacturer. There, plans for development project management and resource deployment were carefully mapped out. I believe that the Company has considerable room to strengthen its capabilities in planning and managing development projects through cooperation with its global subsidiaries.

Composition of the Board of Directors and design of the remuneration system

Khan: Your Board of Directors has 14 members, including corporate auditors. Isn't this too many for a company of your size?

Yoshida: Twenty years ago, our Board consisted of six directors: three internal and three outside. Even before the establishment of the Governance Code, we maintained a 50% ratio of outside directors. Today, the Board comprises five internal and five outside directors. Considering the Company's business expansion, we do not believe that the current number of directors is excessive.

Nakamura: Outside directors participate in key executive meetings, such as Executive Officer Meeting, Business Process Innovation Meeting, and Development Promotion Meeting sessions. This minimizes information gaps with the executive team and ensures that outside directors are deeply involved in strategic discussions while also fulfilling their institutional supervisory function. Although this practice is unique to the Company, we believe that it works effectively.

Dialogue Between an Institutional Investor and Outside Directors

Fukuda: The company I was previously affiliated with reduced the number of directors when it transitioned to a Company with Audit and Supervisory Committee. Because the optimal size and composition of the Board of Directors are closely tied to the Company's organizational design, I believe that this discussion should proceed only after determining what is in the best interest of the Company and considering the balance between the internal and outside directors.



Khan: My next question is about compensation for the management team. Under your current system, the bonus pool is set at 4% of non-consolidated net profit; however, this does not appear to align with the management targets outlined in the current Medium-Term Management Plan.

Yoshida: The cash bonus system was originally designed to ensure consistency with the dividend payout ratio. However, because dividends are determined on the basis of consolidated financial results, a discrepancy has arisen between the system's design and actual practice. Currently, the Nomination and Remuneration Advisory Committee is discussing the design of a new system that links bonuses to medium- to long-term consolidated financial results and various performance indicators.

Khan: We would like to see the proportion of performance-linked stock compensation increase further. Ideally, there should be a system that links stock grants to the achievement of challenging KPIs so that directors receive shares of their own when these targets are met. To foreign investors, management team members at Japanese companies typically hold too few shares of their own.

Yoshida: That is under consideration. Meanwhile, there is concern about the widening income gap between the management team and employees. Therefore, we must proceed cautiously, ensuring that improvements in employee treatment keep pace.

Fukuda: The current equity-based compensation, which is not being closely linked to performance, has lost some of its effectiveness as a long-term incentive. Therefore, we might consider linking stock grants to the achievement of the Medium-Term Management Plan or raising the proportion of stock in the compensation of the CEO and other C-level executives. Additionally, to realize an "offensive governance approach," we believe that it would be effective to introduce nonfinancial KPIs, such as those related to sustainability, and extend equity-based compensation to outside directors as well.

Khan: Many European companies provide stock compensation to outside directors, with restrictions on transferring the shares for a period following retirement. I believe that a system designed in this manner would be effective in ensuring medium- to long-term management responsibility.

Independence, tenure, and ensuring diversity

Khan: What is your view on the tenure of outside directors? Many investors believe that ensuring independence becomes difficult once their tenure exceeds approximately 10–12 years, as they may become too close to management.

Yoshida: I do not believe that the length of tenure in itself compromises independence. During the last year's presidential transition, the Nomination and Remuneration Advisory Committee led the process, providing impartial recommendations to the Board of Directors. While maintaining a trusting relationship with the management team, we remain vigilant and always act in the best interests of minority shareholders.

Khan: I believe that diversity among Board members is essential to realize long-term visions. How do you consider the current composition, and what is your vision of the ideal state?

Kitamoto: To further enhance diversity among Board members, we believe that appointing directors and senior managers with advanced expertise in DX and finance is important. In particular, competition for talent in the DX field is intensifying. Given this, it is vital not only to recruit externally but also to establish a system for developing individuals internally according to planned schedules and promoting them from within.

Yoshida: Currently, our outside directors have backgrounds in auditing, manufacturing, finance, and general trading. We also have one female director. Drawing on their expertise, they engage in animated discussions. Therefore, we acknowledge that a certain level of diversity is ensured. We need to further strengthen executive expertise in DX and other specialized domains.

Hayashi: As an engineer myself, I would like to see deeper discussions on technology. Moving forward, I believe the Board should include individuals with both technological expertise and management perspectives.

Khan: I can see that you all exchange candid opinions from your respective perspectives. I found this dialogue very meaningful for both sides, helping me to deepen my understanding of the HDS Group. It is my sincere hope that this discourse will serve as an opportunity to further promote proactive management by the Board of Directors.



Corporate Governance

Basic views

The fundamental policy of Harmonic Drive Systems Inc. (hereinafter “the Company”) for corporate governance is based upon ensuring sound and transparent corporate management and achieving swift and effective decision-making, with the aim of meeting the expectations of our stakeholders, achieving sustainable growth, and enhancing our corporate value over the long term. We do so through the implementation of our Management Philosophy, which consist of four pillars: Respect for the Individual, A Meaningful Company, Coexistence and Co-prosperity, and Contribution to Society.

Reasons for selecting a company form with a Board of Corporate Auditors

The Company’s governance structure is based fundamentally on an institutional system in which it has a Board of Corporate Auditors in place, as stipulated in the Companies Act. Since the Company believes that its current governance system is functioning effectively, it has determined that it is appropriate to continuously enhance the corporate governance structure based on the current setup of the company with a Board of Corporate Auditors. The Board of Corporate Auditors after the Ordinary General Meeting of Shareholders held on June

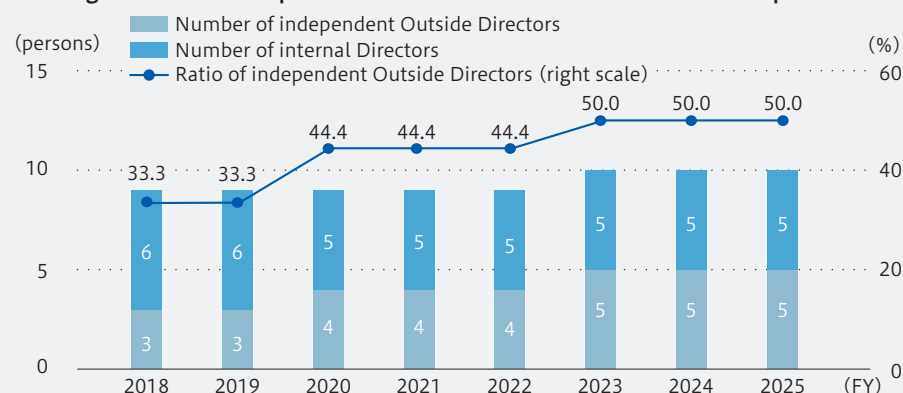
21, 2024 comprises a total of four members, two full-time and two parttime, out of which two are Outside Corporate Auditors. The four Corporate Auditors have established a system that enables them to regularly audit the status of business execution. They actively participate not only in the Board of Directors meetings but also in other important meetings related to business execution. In addition, they conduct annual interviews with the Representative Directors, share information with Outside Directors, and exchange opinions with executive Directors, Executive Officers, division heads, and the presidents of domestic and overseas subsidiaries.

Track record of corporate governance enhancement

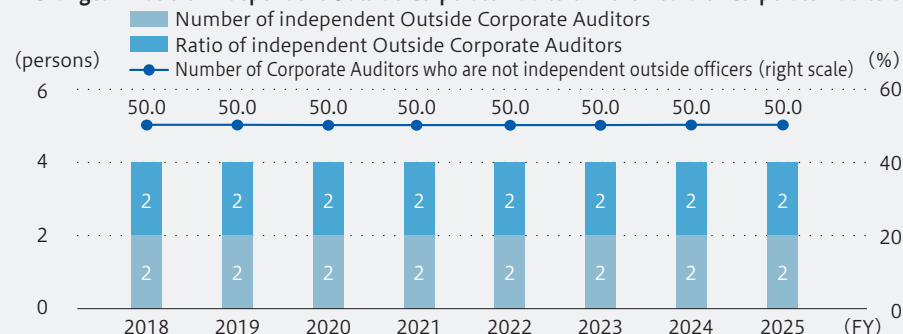
FY2001	Number of outside corporate auditors increased (from 2 to 3)
FY2003	- Executive officer system adopted - Outside directors appointed (2 directors) - Board of Directors Advisory Committee established
FY2004	Number of outside directors increased (from 2 to 3)
FY2005	Functions of Board Chairperson and President-cum-Representative Director separated
FY2006	Basic policy for internal control system formulated
FY2011	Internal Control and Auditing Office established
FY2013	Number of outside directors increased (from 3 to 4)
FY2019	Whistleblower system established
FY2022	- Executive retirement allowance system abolished - Stock compensation system with transfer restrictions introduced
FY2023	- Sustainability Committee established - Number of Outside Directors increased (from 4 to 5) - Female Director appointed - Nomination and Remuneration Advisory Committee (voluntary) established

Changes in ratio of independent outside officers in the Board of Directors and Board of Corporate Auditors (As of June 20, 2025)

Changes in ratio of independent Outside Directors to Board membership



Changes in ratio of independent Outside Corporate Auditors in the Board of Corporate Auditors



Corporate Governance

■ **Composition of the Board of Directors** (As of June 20, 2025)

Thirteen (13) males and one (1) female (ratio of female directors and corporate auditors is 7.1%)

Name	Position	Attendance at Board of Directors Meetings (FY2024)	Time of Appointment as Director	No. of Shares Held	Expected Insight, Experience, Capability, Expertise, etc.							
					Corporate Management/ Management Strategy	Overseas Business	Sales/ Marketing	Manufacturing/ Production	Technology/ R&D	Financial Strategy/ Capital Policy/ Accounting	Information and Communication Technology (ICT, DX)	Sustainability
Akira Nagai	Chairperson of the Board of Directors	20/20	June 2013	60,537	●	●	●			●	●	
Akira Maruyama	President, Representative Director	20/20	June 2016	13,697	●		●	●	●		●	
Kazutoshi Kamijoh	Representative Director	20/20	June 2020	17,235	●		●			●		
Yoshihiro Tanioka	Director	20/20	June 2021	7,982	●	●	●	●	●			
Naomi Shirasawa	Director	15/15	June 2024	9,379	●	●	●	●	●			
Haruhiko Yoshida	Outside Director (Independent Officer)	20/20	June 2023	24,452	●	●	●					
Masanobu Nakamura	Outside Director (Independent Officer)	20/20	June 2013	13,616	●	●	●			●		
Yoshio Fukuda	Outside Director (Independent Officer)	20/20	June 2020	1,544	●	●	●	●		●		
Kazuhiko Hayashi	Outside Director (Independent Officer)	20/20	June 2022	580	●	●			●			
Kaeko Kitamoto	Outside Director (Independent Officer)	19/20	July 2023	0	●					●		●

* Naomi Shirasawa was newly elected and assumed office at the Annual General Meeting of Shareholders for FY2023 held on June 21, 2024. Accordingly, his attendance is reported only for Board of Directors meetings held on or after that date.

Corporate Governance

Reasons for selecting skill areas of the Skills Matrix

Skill areas	Reason for selection
Corporate management/ Management strategy	A director needs management experience and track record at various companies including a manufacturing company as well as abundant knowledge to deliver technological innovation for a better society under the Group's mission of "contributing to technological innovation in society through motion control technology", in addition to achieving a sustainable society and enhancing corporate value.
Overseas business	A director needs abundant knowledge and experience in overseas business management and local culture, etc. to promote the growth strategy of the Group which operates business overseas.
Sales/ Marketing	A director needs proven knowledge and abundant experience in sales and marketing to identify essential needs of customers, create attractive and satisfactory products, and provide customer-oriented services.
Manufacturing/ Production	A director needs proven knowledge and abundant experience in manufacturing and production which is essential to maintain and develop a production system to achieve added-value manufacturing in total motion control, the domain of the Company, and high customer satisfaction.
Technology/ R&D	A director needs experience in R&D for speed reducers and mechatronics products, in addition to expertise and experience in the industry, to ensure high product quality as a leading company of precision control market, and develop high added-value products for customers.
Financial strategy/ Capital policy/ Accounting	A director needs proven knowledge and abundant experience in finance and accounting to build a solid financial base, promote growth investment and financial strategy to sustainably enhance corporate value and return profits to shareholders.
Information and Communication Technology (ICT, DX)	A director needs proven knowledge and experience in information and communication technology to develop information infrastructure including cyber security measures and to promote ICT across the Company utilizing advanced information technologies.
Sustainability	A director needs proven knowledge and experience in human capital—including the promotion of diversity, equity, and inclusion—and in initiatives such as the introduction of renewable energy sources to reduce greenhouse gas emissions, in order to promote the maximization of human capital value and contribute to a sustainable society through corporate activities, based on the Basic Policy of Sustainability and material issues (materiality), which were established to realize a sustainable society and enhance corporate value.

Reason for nomination as candidate for Outside Director and expected role

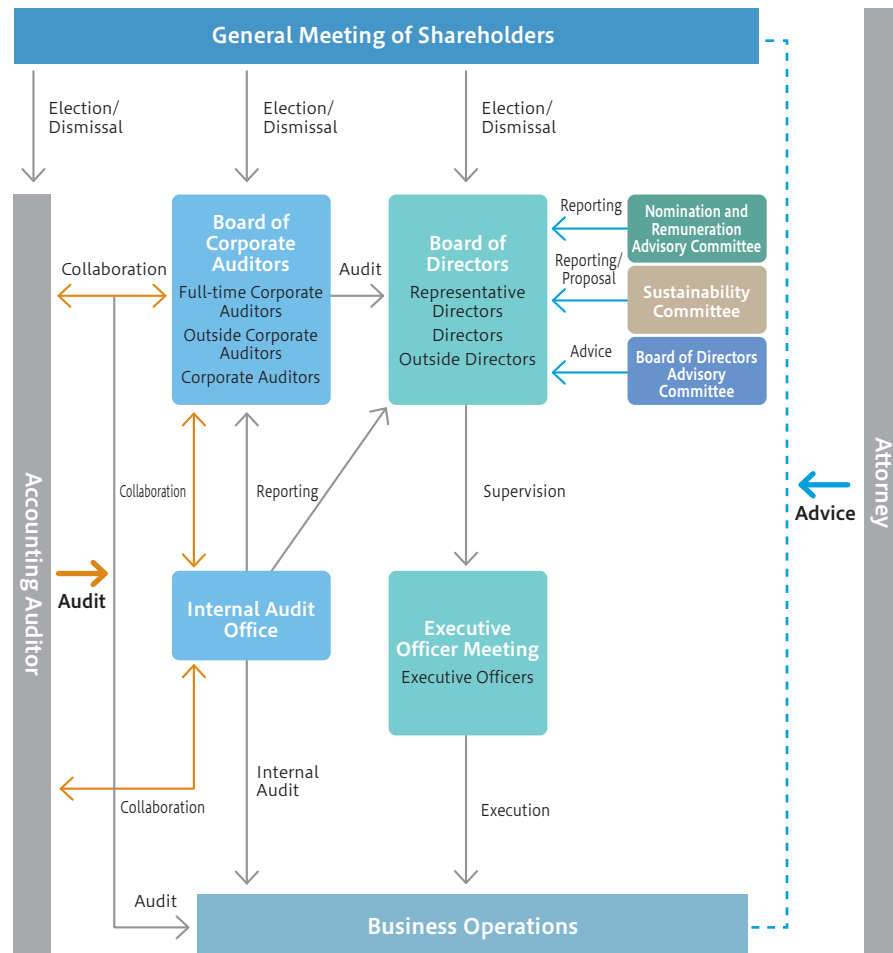
Name	Reason for appointment
Haruhiko Yoshida	Mr. Haruhiko Yoshida has served in prominent positions at Mitsui & Co., Ltd., and possesses abundant experience and superior insight in regard to corporate management, in addition to extensive international experience. Thus far, he has utilized this ability and experience to appropriately advise and supervise the management of the Company in general, and can be expected to continue to do so.
Masanobu Nakamura	Mr. Masanobu Nakamura has served in prominent positions in major banks and securities companies, and possesses abundant experience and superior insight in regard to corporate management, in addition to extensive international experience. Thus far, he has utilized this ability and experience to appropriately advise and supervise the management of the Company in general, and can be expected to continue to do so.
Yoshio Fukuda	Mr. Yoshio Fukuda has served in prominent positions at Teijin Limited and the Teijin Group, and has also served as an Outside Director of Toyo Construction Co., Ltd. He possesses abundant experience and superior insight in corporate management, in addition to extensive international experience. He also has a high level of knowledge in strategic planning, establishment of joint ventures, and M&A. Based on the above, the Company has judged that he has been appropriately advising and supervising the overall management of the Group, which is expanding its business internationally, from an independent standpoint, and can be expected to continue to do so.
Kazuhiro Hayashi	Mr. Kazuhiro Hayashi has engaged in the development and engineering of power train and electric drive control system, etc. at the Toyota Group, and demonstrated leadership as manager. He has served in prominent positions at the Sumitomo Electric Industries Group, and possesses abundant experience and superior insight in regard to corporate management. In addition, he has top-class expertise on the development and engineering of such products, and served as a visiting professor at a graduate school which was established to invent new technology based on advanced technology and creating new business, where he lectured on energy and control-related fields in the automotive industry. Based on this experience and capability, the Company judges that he can advise and supervise the management of the Company in general, and can be expected to continue to do so.
Kaeko Kitamoto	Ms. Kaeko Kitamoto has abundant experience and superior insight into financial accounting, having been involved in accounting audits of various listed companies as a certified public accountant at a major audit corporation and having served as a Partner and Executive Board Member of the same corporation. In addition, based on her experience serving as a member of the Electricity and Gas Market Surveillance Commission of the Ministry of Economy, Trade and Industry, she possesses knowledge of introducing renewable energy sources to reduce CO ₂ emissions. Based on this experience and capability, the Company judges that she can appropriately advise and supervise the management of the Company in general and its sustainability initiatives, including climate change and diversity, equity, and inclusion.

Main agenda items of Board of Directors meetings in FY2024

- Reports and deliberations on progress of Medium-Term Management Plan/single-year plan, and status of business execution
- Deliberations on annual management plan and budget, R&D investment, etc.
- Reports and deliberations on internal audit, whistleblower system, effectiveness of business activities, and operational status of other internal control systems
- Business execution framework and revamp of organizational mechanisms
- Evaluation of Board of Directors' effectiveness (analysis based on questionnaire survey conducted among all Directors and Corporate Auditors)
- Acquisition of treasury shares and financing
- Promotion of sustainability-related activities

Corporate Governance

• Corporate Governance System



• Roles and Compositions of Supervisory Institutions (As of June 20, 2025)

Institutions	Board of Directors	Board of Corporate Auditors
Composition	 Independent Officer 5 Chair: Chairperson of the Board of Directors	 Independent Officer 2 Chair: Full-time Outside Corporate Auditor
Percentage of Independent Officers	50%	50%
Purpose/ Authority	• Resolutions on basic management policies, etc. • Supervision of the execution of duties by Executive Officers	• Audit of the execution of duties by Directors • Preparation of audit reports • Determination of the content of proposals concerning the selection and dismissal of Accounting Auditors, etc.
Number of meetings held in FY2024	20	17
Secretariat	Corporate Planning & Investor Relations	Corporate Auditors' Office

Corporate Governance

■ Analysis and evaluation of directors' effectiveness

We annually evaluate whether the Board of Directors is appropriately fulfilling its decision-making and supervisory functions to enhance corporate value and achieve sustainable growth. Through this process, we aim to further strengthen management soundness and transparency, accelerate decision-making, improve managerial efficiency, and reinforce corporate governance.

Evaluation process

We followed the process below to evaluate the effectiveness of the Board of Directors for fiscal 2024.

- (1) Conducted a questionnaire survey for all directors and corporate auditors covering matters deemed important for the Board of Directors to effectively fulfill its roles and responsibilities. These matters include the Board's composition, operation, and agenda, as well as systems supporting the Board and sustainability issues.
- (2) Reported and discussed the survey results at the Board of Directors meetings.

Overview of evaluation results for FY2024

Based on the results of this evaluation, we confirmed the effectiveness of the Board of Directors as follows:

- (1) Regarding the Board's composition, operational status, agenda deliberations, and support systems, more than 90% of responses indicated "appropriate" or "generally appropriate," confirming that overall effectiveness is maintained.
- (2) Regarding the medium- to long-term, future-oriented business strategy and the development of human resources to support it, we recognized that further discussion is necessary.

Initiatives for FY2025

Based on the evaluation results, we will pursue the following initiatives in fiscal 2025:

- (1) Set discussion themes and hold free discussions
- (2) Conduct training sessions on related themes

■ Status of activities of Board of Corporate Auditors in FY2024

HDSI is a company with a Board of Corporate Auditors. The Company's audit for fiscal 2024 was conducted as follows by a total of four members of the Board of Corporate Auditors (including three Outside Auditors), consisting of two full-time auditors and two part-time auditors.

- After the Ordinary General Meeting of Shareholders held on June 21, 2024, the Board of Corporate Auditors determined audit policies, plans, and work assignments, and each Board member audited the execution of duties by Directors, Executive Officers and others in accordance with the "Board of Corporate Auditors Regulations," "Board of Corporate Auditors Auditing Standards" and "Implementation Standards for Internal Control System."
- Audited the execution of duties by Directors through attendance at important meetings, including Board of Directors meetings, Executive Officer Meeting sessions, Business Process Innovation Meeting sessions, Development Promotion Meeting sessions, Affiliated Company Meeting sessions, and the President's Audit
- Met with Representative Directors, shared information with Outside Directors, exchanged opinions with executive Directors, Executive Officers, division heads, office managers, divisional sales managers, and the presidents of domestic and overseas subsidiaries
- Inspected important documents, including authorization requests and credit application forms
- Planned and held Group corporate auditor liaison meetings with auditors from affiliated companies to share information among Group companies and took the lead in improving knowledge related to auditing duties

Priority audit items in FY2024

- Management environment and progress of plans, including the status of the current Medium-Term Management Plan in its initial year, the new Board structure, and responses to new projects
- Status of building and strengthening collaborative frameworks with subsidiaries important to overseas strategies
- Status of establishing and operating internal control systems at group subsidiaries
- Status of information security measures
- Status of initiatives related to group risk management
- Policies, strategies, promotion framework, and progress related to sustainability

The status of Board of Corporate Auditors meetings is as follows.

The Board of Corporate Auditors holds regular meetings on the same day in principle as the Board of Directors' meetings and convenes extraordinary meetings as necessary. The Board of Corporate Auditors held a total of 17 meetings in FY2024.

Name	Full-time/ Part-time	Independent	Attendance record	Attendance rate
Yoshitsugu Yokogoshi	Full-time	○	17/17	100%
Hidefumi Iguchi	Full-time	—	17/17	100%
Shigeto Ohashi	Part-time	—	4/4	100%
Eisaku Imazato	Part-time	○	17/17	100%
Nobuyuki Higashi	Part-time	—	13/13	100%

*1 Mr. Shigeto Ohashi retired upon the conclusion of the FY2023 General Meeting of Shareholders held on June 21, 2024. Therefore, his record reflects his attendance of the Board of Corporate Auditors meetings held up to that date.

*2 Mr. Nobuyuki Higashi was newly elected and assumed office at the FY2023 General Meeting of Shareholders held on June 21, 2024. Therefore, his record reflects his attendance of the Board of Corporate Auditors meetings held on or after that date.

Cooperation with internal audit section

The Internal Audit Office is responsible for conducting internal audits. It reports directly to the President & CEO and consists of one General Manager and one audit staff member. The office conducted audits of the Company and its Group companies. The office conducted internal audits based on an annual audit schedule, assessing the status of business processes and internal controls. It also provided suggestions and recommendations as necessary, and regularly reported the status and results of audits to the President & CEO, the Board of Directors, and the Board of Corporate Auditors. The Internal Audit Office also shared audit plans and risk-related information with the Accounting Auditor. In addition, it worked closely with the Corporate Planning Division, which is responsible for group management, and other management sections to ensure consistency between audit activities and internal controls.

■ Policy for determining executive compensation and its calculation method

Compensation for executive directors consists of a fixed remuneration of basic compensation in cash and equity-based compensation in the form of shares with transfer restrictions, and variable remuneration such as bonuses linked to the annual performance. Such executive compensation takes into account Directors' responsibilities for enhancing the medium to long-term corporate value of the HDS Group and for improving its performance in each business year. The compensation for Outside Directors consists of basic compensation in cash and bonuses.

Indicators determining performance-linked compensation

The Directors' performance-linked compensation is determined by a comprehensive consideration of the earnings performance of each business year (based on a standard of 4% of non-consolidated net profit in principle) and the achievement status of the relevant year's management plan, in order to enhance the awareness of performance improvement on an annual basis. After this process of determination, the proposed compensation is consulted with the Nomination and Remuneration Advisory Committee, which gives recommendations, and is resolved by the Board of Directors as a matter to be submitted to the shareholders' general meeting before being finalized at a shareholders' general meeting. The reason for using non-consolidated net profit as a metric for determining executive bonuses is based on the belief that it is desirable to align executive bonuses with earnings performance. In addition, it is a clear indicator and it highly correlates with earnings per share, among other factors.

Proportion by type of compensation

Remuneration for executive Directors consists of fixed compensation (basic compensation in cash and equity-based compensation in the form of shares with transfer restrictions) and variable compensation (performance-linked bonuses). Since non-consolidated net profit, which serves as the funding source for bonuses, varies depending on business performance, the proportion of each type of compensation is not determined in advance, but retrospectively, based on the amount of bonus determined by the performance linked key indicators for each business year.

Method for determining compensation amount for individual Directors

Decision-making authority on compensation for individual executive Directors is delegated to the President, Representative Director, taking into account factors such as if a Director has the authority to represent the company, position, responsibilities, and contribution. In determining the compensation amount, however, the President, Representative Director consults with other Representative Directors and two Outside Directors selected by the Board of Directors regarding a draft remuneration amount prepared in advance for each Director, and decides after considering recommendations from these officers. Regarding the responsibilities, execution of duties, and contribution of executive Directors, decision-making authority based on a comprehensive perspective is delegated to the President, Representative Director, after undergoing the aforementioned consultation and recommendation process since the President, Representative Director, has the most comprehensive understanding of these matters.

Compensation for individual Outside Directors is determined after consideration and evaluation of factors such as the responsibilities of each Outside Director, the status of Board meeting attendance, and the contents of statements and proposals at various meetings. The President, Representative Director makes decisions from a comprehensive perspective after discussions with each Outside Director.

The compensation for each Director and other matters for the fiscal year ending March 31, 2025 and onwards will be decided by the President, Representative Director after going through the process of consultation and recommendation from the Nomination and Remuneration Advisory Committee (established on March 25, 2024) and a resolution by the Board of Directors.

Compensation for Corporate Auditors

Compensation for Corporate Auditors consists solely of fixed basic remuneration in cash.

Details of executive compensation (FY2024 results)

Details of executive compensation are provided in the "Executive Compensation" section of the Securities Report.

[Website] Securities Report
for the fiscal year ending
March 31, 2025



■ Nomination and Remuneration Advisory Committee (voluntary)

As of March 25, 2024, HDSI established a Nomination and Remuneration Advisory Committee (voluntary) on the same date. According to its regulations, the Nomination and Remuneration Advisory Committee is required to have a majority of Outside Directors among its members. Currently, three Directors (Outside Director, Haruhiko Yoshida; Outside Director, Masanobu Nakamura; and President, Representative Director, Akira Maruyama) serve as members. The Committee is chaired by Outside Director, Haruhiko Yoshida.

As an advisory body to the Board of Directors, the Nomination and Remuneration Advisory Committee considers and deliberates Director candidates, candidates for Directors with titles, compensation plans for Directors, and other matters, and decides the recommendations for the Board of Directors.

Status of activities in FY2024

Name	Independent	Attendance record	Attendance rate
Haruhiko Yoshida	○	7/7	100%
Masanobu Nakamura	○	7/7	100%
Akira Nagai	—	4/4	100%
Akira Maruyama	—	3/3	100%

*1: The attendance record for Akira Nagai is reported up to his resignation on June 21, 2024.

*2: The attendance record for Akira Maruyama is reported from his appointment on June 21, 2024 onward.

Directors and Executives



Directors



He joined Mitsui & Co., Ltd. in 1972, achieving notable results in business operations at overseas locations. He joined the Company in 2002, where he led and promoted sales and marketing, corporate planning, IT, and investor relations. He was appointed President and Representative Director in 2013, demonstrating strong leadership in strengthening the Group's management foundation and enhancing corporate value. Since 2024, as Chairperson of Board of Directors, he has focused on reinforcing the Group's governance, enhancing the effectiveness of the Board of Directors and overseeing group management.

Skills



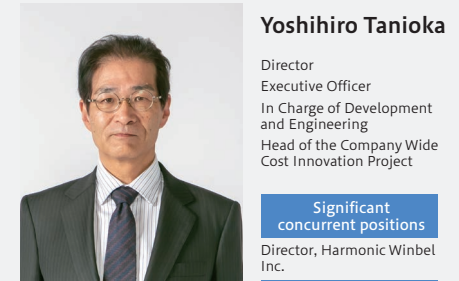
He joined the Company in 1985 and made significant contributions to the development, sales, design, and engineering of speed reducers. He was appointed Director in 2016 and served as the head of development, corporate planning, IR, and ICT. He became Representative Director in 2022, and President and Representative Director in 2024. Since then, he has demonstrated leadership by launching initiatives such as the Company Wide Cost Innovation Project to achieve the Medium-Term Management Plan for fiscal 2024-2026, centered on the theme "Take on the Challenge of Value Creation and Transformation."

Skills



He joined the Company in 1992. After gaining practical experience in the sales section, he achieved strong results in management planning, capital policy, and corporate actions as the head of finance and corporate planning. He built the IR framework from the ground up and actively promoted dialogue with shareholders and investors. He was appointed Director in 2020 and Representative Director in 2024. As CFO, he has demonstrated leadership in strengthening the Group's financial foundation and IR. He has substantial expertise in finance and accounting.

Skills



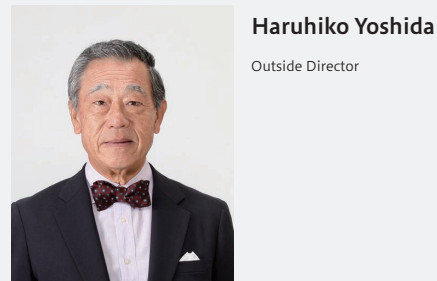
He joined the Company in 1982 and demonstrated strong capabilities in managing the mechatronics product business. He served as the head of the Sales Strategy and Overseas Business Divisions. As President of Harmonic AD, Inc., he also delivered strong results in the precision planetary speed reducer business. He was appointed Director of the Company in 2021. He led and strengthened development and engineering while also exercising leadership as the officer in charge of the Company Wide Cost Innovation Project.

Skills



He joined the Company in 1983 and achieved strong results in production technology, development, marketing, and sales. He played a key role in the launch of Harmonic AD, Inc. and led the precision planetary speed reducer business as its Representative Director and President. He also contributed to expanding sales in the Chinese market as a Director of Harmonic Drive Systems (Shanghai) Co., Ltd. He was appointed Director of the Company in 2024 and is demonstrating leadership as the head of marketing and sales.

Skills



He joined Mitsui & Co., Ltd. in 1966 and was appointed Director in 1998 and Representative Director in 2001. He has extensive international business experience as well as insight and expertise in corporate management. He was appointed Outside Director of the Company in 2003 and has contributed to group governance through recommendations and oversight based on his deep insight and experience in corporate management. In 2024, as the inaugural Chair of the Company's voluntary Nomination and Remuneration Advisory Committee, he demonstrated leadership in deliberations on director appointments and dismissals, compensation, and succession planning, thereby contributing to governance.

Skills



He joined The Sanwa Bank, Ltd. (currently MUFG Bank, Ltd.) in 1970 and was appointed Representative Director in 2004. He subsequently held key positions at major foreign securities firms and other organizations. He has extensive international business experience as well as insight and expertise in corporate management. He became a member of the Company's Board of Directors Advisory Committee in 2007 and was appointed Outside Director of the Company in 2013, contributing to group governance through recommendations and oversight based on his deep insight and experience. Since 2024, he has also served as a member of the Company's voluntary Nomination and Remuneration Advisory Committee.

Skills



He joined Teijin Limited in 1976 and was appointed Director in 2010. He was appointed Outside Director of Toyo Construction Co., Ltd. in 2016. He has international business experience as well as insight and expertise in corporate management, with particular strengths in strategic planning, joint venture formation, and M&A. He was appointed Outside Corporate Auditor of the Company in 2017 and Outside Director in 2020. He contributes to group governance through recommendations and oversight based on his deep insight and experience.

Skills



Directors and Executives

**Kazuhiko Hayashi**

Outside Director

He joined Toyota Motor Co., Ltd. (currently Toyota Motor Corporation) in 1978 and served as the head of development and engineering for power trains, electric drive control system, and related areas. He subsequently held key positions within the Sumitomo Electric Group. He has outstanding expertise and know-how in development and engineering. He was appointed Outside Director of the Company in 2022 and contributes to group governance through recommendations and oversight based on his deep insight and experience.

Skills

**Kaeko Kitamoto**

Outside Director

Significant concurrent positions

Audit & Supervisory Board Member (External),
DAIKIN INDUSTRIES, LTD.
Independent Director,
EBARA CORPORATION

She joined Sapporo Breweries Limited in 1988. In 1993, she joined Ota Showa Audit Corporation (currently Ernst & Young ShinNihon LLC), where she served as Partner and Executive Board Member. She has substantial expertise in finance and accounting. She has also served as a member of the Electricity and Gas Market Surveillance Commission of the Ministry of Economy, Trade and Industry in 2018, and has expertise in CO₂ reduction and renewable energy adoption. She was appointed Outside Director of the Company in 2023 and contributes to group governance through recommendations and oversight based on her deep insight and experience.

Skills



Corporate Auditors

**Yoshitsugu Yokogoshi**

Full-time Outside Corporate Auditor

He joined The Sanwa Bank, Ltd. (currently MUFG Bank, Ltd.) in 1977 and held key positions at the bank. In 2009, he became Executive Vice President of Mitsubishi UFJ Asset Management Co., Ltd. (currently Mitsubishi UFJ Asset Management Co., Ltd.). He gained substantial management experience and deep insight into corporate management through his career at a major banking group. He was appointed full-time Audit & Supervisory Board Member of Cosmo Oil Co., Ltd. in 2017, where he accumulated experience as an auditor and developed substantial expertise in finance and accounting. He was appointed full-time Outside Corporate Auditor of the Company in 2020 and contributes to group governance through neutral and objective auditing.

**Hidefumi Iguchi**

Full-time Corporate Auditor

He joined the Company in 1983 and achieved strong results as the head of quality, environment, internal control, and audit. He was appointed Executive Officer of the Company in 2014. As Manager of Environment, he promoted corporate governance, strengthened human capital, and advanced climate change initiatives. He was appointed full-time Corporate Auditor of the Company in 2022 and contributes to strengthening the audit function and enhancing group governance by drawing on the experience and expertise he has accumulated to date.

**Eisaku Imazato**

Outside Corporate Auditor

He joined The Nikko Securities Co., Ltd. (currently SMBC Nikko Securities Inc.) in 1979 and became its Director in 2004. He was appointed Managing Executive Officer of Mitsubishi UFJ Securities Co., Ltd. in 2009. In 2016, he was appointed Outside Director and Chairperson of the Board of Directors of Marusan Securities Co., Ltd. He gained extensive management experience and insight through holding key positions at major securities companies. He was appointed Outside Corporate Auditor of the Company in 2020 and contributes to group governance through neutral and objective auditing.

**Nobuyuki Higashi**

Corporate Auditor

Significant concurrent position

Senior Executive Managing Director, INCJ, Ltd.

He joined Nomura Research Institute, Ltd. in 1987. In 2012, he joined Innovation Network Corporation of Japan (INCJ, currently Japan Investment Corporation) as Managing Director, where he also served as an outside officer for multiple companies within its investment portfolio. He also served as Outside Corporate Auditor of the Company's German affiliate, for which the Company and INCJ jointly acquired additional shares in 2017. He was appointed Corporate Auditor of the Company in 2024. He has substantial expertise in finance and accounting and contributes to group governance through audits based on his extensive corporate management experience.

Executive Officers

Akira Nagai

Executive Chairperson, Group Management

Akira Maruyama

Executive President, Chief Executive Officer

Kazutoshi Kamijoh

Senior Managing Executive Officer, General Manager of Finance Accounting, Finance and Tax Division

Minoru Asano

Managing Executive Officer, General Manager of Supply Chain Division

Tetsuo Ikuta

Executive Officer, In Charge of Public Relations

Yoshihide Kiyosawa

Executive Fellow Officer (Chief Technical Officer), In Charge of Engineering and Quality, General Manager of Quality Assurance Division

Yoshihiro Tanioka

Executive Officer, General Manager of Development and Engineering Division

Michiya Yashiro

Executive Officer, General Manager of Risk Management Division

Naomi Shirasawa

Executive Officer, In Charge of Marketing and Sales, General Manager of Domestic Sales Division

Makiko Ono

Executive Officer, Head of Sustainability, Corporate Planning, and Investor Relations

Tsuyoshi Awaduhara

Executive Officer, In Charge of Production, Production Planning, General Manager of First Production Division

Hiroki Hanaoka

Executive Officer, General Manager of Production Technology Division

Osamu Asakura

Executive Officer, General Manager of Administration and Human Resource Division and Manager of Environment

Shizuka Yata

Executive Officer, Chief of Harmonic Drive Laboratory

Tetsuya Shiokawa

Executive Officer, General Manager of Corporate Planning Division, In Charge of Business Development.

Message from Officer in Charge of Public Relations



Executive Officer
Head of Public Relations
Tetsuo Ikuta

Exhibition at Future Creation Robot Week
at the Osaka-Kansai Expo
(July 13–19, 2025)



We will widely disseminate our Group's business model to society and establish a trusted brand as a provider of optimal technological solutions.

■ Building trust and co-creating value with stakeholders

Our Group views public relations as a touchpoint for building trust with society and as a crucial management function for maximizing corporate value. In particular, co-creating value with stakeholders in advanced industries is a driving force that sustains our Group's growth.

The foundation of our business is our dedication to technological innovation in constantly evolving industrial domains. Our competitive advantage relies on the demand for our Group's high-precision and high-performance mechanical components from customers designing and developing state-of-the-art robots and mechanical equipment, given that their market is inherently in growing industries attracting global attention. Public relations widely disseminates this business model to society and aims to establish a trusted brand as a corporate group that provides optimal technological solutions.

■ Promoting internal communication to support management philosophy

Our Group is on a mission "to contribute to innovation in society by our motion control technology." To support this mission, we have established a management philosophy with four pillars: "Respect for the Individual," "A Meaningful Company," "Coexistence and Co-prosperity," and "Contribution to Society." In particular, the fact that we place "respect for the individual" at the forefront of our management philosophy distinguishes our corporate culture. To generate awareness of the management philosophy, mission, long-term vision, and material issues among individual employees and integrate them into the organizational culture, it is essential to enhance both the quality and quantity of communication. In *HD.Times*, our internal newspaper, we promote such efforts through the following specific measures.

- Share the philosophy and vision through the internal newspaper
- Strengthen digital communication
- Foster a sense of unity across the globe/group

■ Build sustainable corporate value by contributing to communities and future generations

■ Contributing to communities

Five of our Group's domestic factories and many of our suppliers are located in Azumino City, Nagano Prefecture, and surrounding areas. Many of our stakeholders, including our employees, their families, and business partners, live in this region, where locals support our Group's business. Through our deep connections with these communities, we promote a wide range of activities, including promoting local cultures, socializing, and revitalizing communities through sports events.

- Promoting cultural activities: Harmonic concerts
Harmonic lectures
- Participating in sports events: Shinshu Azumino Half Marathon

■ Contributing to future generations

As a corporate group supporting technological innovation, our Group understands that remaining one and only in the motion control field is a crucial responsibility for contributing to future generations.

We aim to precisely meet constantly changing customer needs, thrive during the intensifying market competition, and remain a socially essential corporate group. As public relations, we will continue to strategically and clearly communicate our management philosophy and how we practice it to domestic and international parties and build a sustainable relationship with future generations.

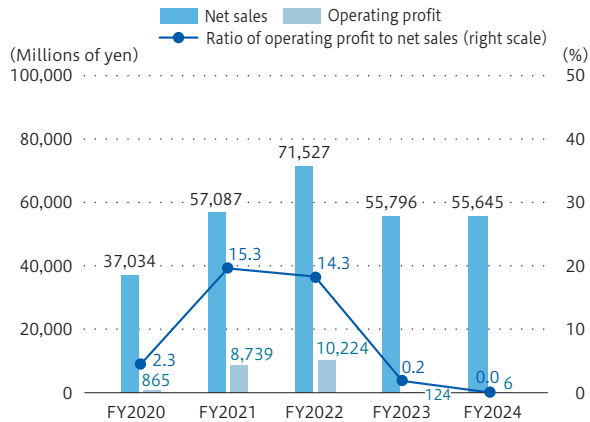
Stakeholder Engagement

The HDS Group aims to enhance corporate value as well as enriching the lives of people worldwide and bringing a sustainable society into reality by "contributing to technological innovation in society through motion control technology". To achieve this, we are endeavoring to build trusting relationships with all stakeholders, including employees, shareholders/investors, customers, suppliers, local communities, and future generations, through continuous dialogue and co-creation with them.

Stakeholders	Basic Policy	Key concerns of stakeholders	Main dialogue channels	Related SDGs
Employees	We aim to be a company where the rights of each and every employee are respected, and where individuals can pursue a meaningful and fulfilling cultural life. For that purpose, we strive to be a company that rewards capabilities and performance by supporting the autonomous activities of each individual and creating an environment where individuals can fully utilize their abilities through work.	● Respect for human rights in labor ● Safe production site environment ● Opportunities for growth and self-realization ● Environmental protection of the earth, respect for culture and customs of society ● Ensuring diversity and choice in work style	● Job rotation ● Self-declaration system for career paths, etc. ● Regular personnel appraisals and meetings with superiors ● Internal recruitment system ● Varied skill development training ● Whistleblower system	   
Shareholders/ investors	We disclose information in accordance with the Financial Instruments and Exchange Act and the "Rules on Timely Disclosure of Corporate Information by Issuers of Listed Securities" established by the Tokyo Stock Exchange. Furthermore, it is our policy to proactively and fairly disclose various corporate information considered useful for understanding the Company, including mechanisms of corporate value creation and efforts for enhancing corporate value.	● Initiatives for enhancing corporate value (strengthening shareholder returns) ● Capital policy taking account of capital efficiency ● Earning shareholder returns that exceed capital cost ● Enhancing sustainability-related efforts and disclosure ● Enhancing effectiveness of governance	● Financial results briefing attended by president-cum-representative director (twice a year) ● Small meetings for overseas institutional investors (FY2024: 14 meetings attended by 373 persons, FY2023: 10 meetings attended by 293 persons) ● Individual meetings with domestic and overseas institutional investors (Domestic: FY2024: 150 investors, FY2023: 106 investors) (Overseas: FY2024: 127 investors, FY2023: 89 investors) ● Company briefing sessions for individual investors	
Customers	The HDS Group consistently adheres to management that places "ceaseless research and development activities" and "a constant emphasis on quality" at its foundation, aiming to create attractive products that satisfy our customers and provide services from the perspective of our customers.	● Stable supply of high-quality products ● Meeting delivery deadlines ● Maintaining and improving product quality ● Provision of products that reduce environmental impact ● Responsible supply chain	● Provision of products and services that satisfy customers ● Continuous communication with customers ● Establishment of Customer Satisfaction (CS) Dept. to accommodate various specification requirements ● Global technology exchanges among industry, government and academia through international symposiums ● Product exhibitions such as the International Robot Exhibition	  
Suppliers	We established a Sustainable Procurement Policy in September 2022. We aim for mutual prosperity with all suppliers, who are valued partners, taking into account such matters as fair and equitable transactions, compliance with laws and social norms, respect for human rights and consideration for labor conditions, and consideration for the global environment throughout the entire supply chain.	● Fair, equitable and transparent terms of trading ● Continuous and stable transactions ● Procurement activities friendly to society and the global environment ● Co-creation of sustainability	● Daily procurement activities ● Audits of product quality ● On-site audit on sustainable procurement and response to SAQ ● Confirmation of agreement to the Sustainable Procurement Guidelines ● Environmental impact assessments of potentially hazardous substances and submission of documents on green procurement standards	 
Local communities	Toward achieving "Coexistence and Co-prosperity and "Contribution to Society," as stated in our Management Philosophy, we aim to contribute directly and indirectly to society and industry broadly through our business activities as a good member of society, striving to be a company that helps improve the environment and quality of life in our local communities.	● Prosperity of local communities ● Coexistence and Co-prosperity with local communities ● Job creation in local communities and their development	● Sponsorship of Harmonic Concerts ● Sponsorship of Harmonic Lectures ● Cleanup activities in local communities ● Support for Shinshu Azumino Half-Marathon ● Donations and support activities	  
Future generations	We teach the mechanisms of our group's products, how they are used in robotics, the joy of manufacturing, value creation, and social contribution to younger generations who shoulder the future, ranging from elementary school to university students, through various events and lessons given at school as an outreach program.	● Joy and importance of manufacturing ● Role of mechanical design ● Mechanisms of robots and how they are used ● Value created by our group's products	● Painting competition for elementary schoolchildren ● Lectures on science ● Lessons given at school as outreach program	

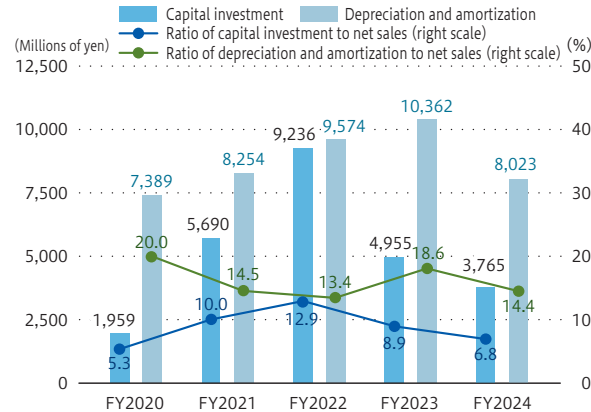
Financial Highlights

Net sales, Operating profit, and Ratio of operating profit to net sales



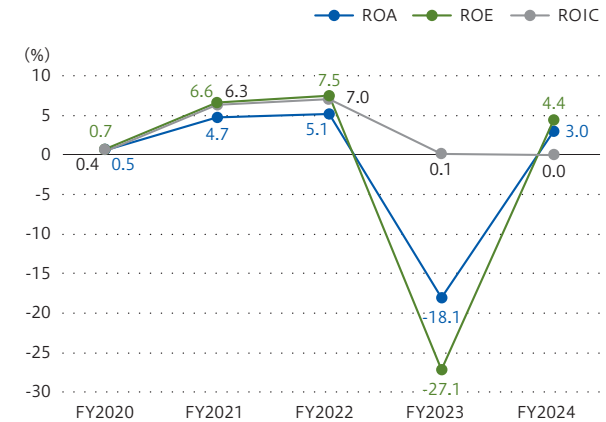
Although domestic orders continued to stagnate from the previous fiscal period, orders began to recover in the second half. As a result, net sales for fiscal 2024 totaled ¥55,645 million, a decrease of 0.3% from the previous fiscal year. Operating profit also decreased due to lower orders, falling 94.4% year on year to ¥6 million.

Capital investment, Depreciation and amortization, Ratio of capital investment to net sales, and Ratio of depreciation and amortization to net sales



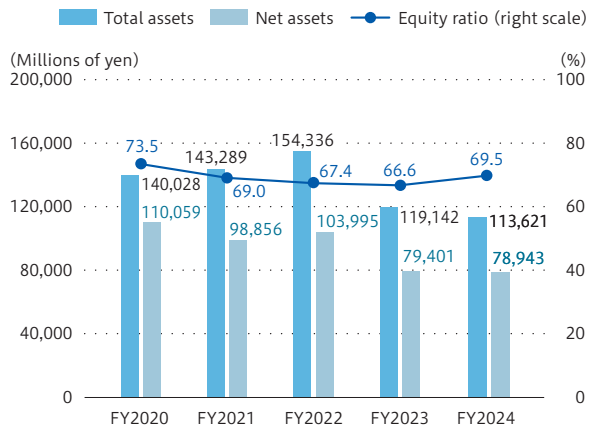
The capital investment decreased 24.0% compared with the previous fiscal year to a total of ¥3.7 billion, representing 6.8% of net sales. By region, Japan accounted for ¥2.1 billion, North America for ¥0.6 billion, and Europe for ¥1.0 billion. Depreciation and amortization, including intangible assets, decreased by ¥2.3 billion to ¥8.0 billion (14.4% of net sales).

ROA, ROE, and ROIC



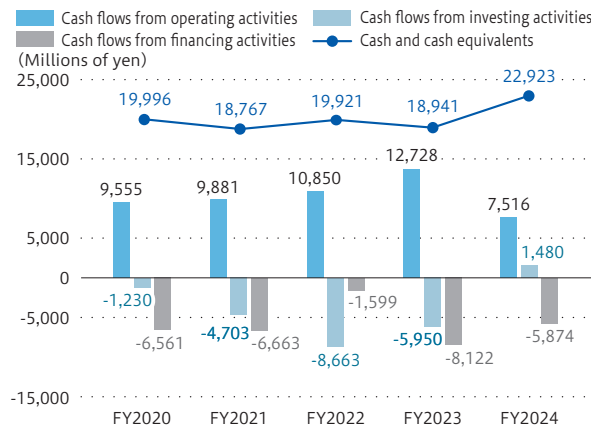
Return on assets (ROA) increased by 21.1 percentage points to 3.0%, and return on equity (ROE) increased by 31.5 percentage points to 4.4%, both from the previous fiscal year. The primary reason for the increase was the recording of approximately ¥5.8 billion in extraordinary income from the sale of investment securities, which resulted in a turnaround to a net profit of approximately ¥3.4 billion. Meanwhile, return on invested capital (ROIC) decreased by 0.1 percentage points to 0.0%.

Total assets, Net assets, and Equity ratio



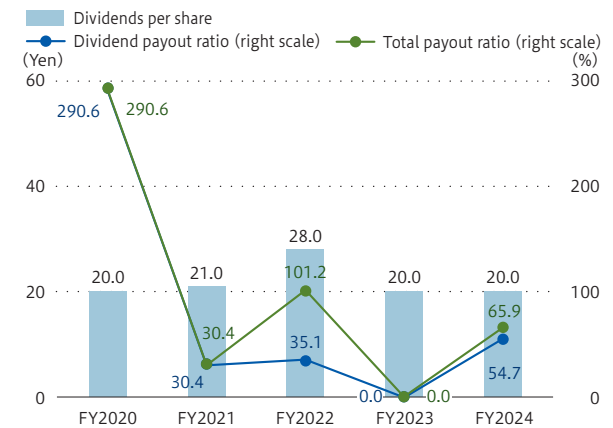
At the end of fiscal 2024, total assets decreased by ¥5.5 billion from the previous fiscal year end to ¥113.6 billion, while net assets decreased by ¥0.4 billion from the previous fiscal year end to ¥78.9 billion. Equity ratio increased by 2.9 percentage points from the previous fiscal year end to 69.5%.

Cash flows, and Cash and cash equivalents



In terms of cash flows, operating activities provided net cash of ¥7.5 billion, a decrease of ¥5.2 billion from the previous fiscal year, while investing activities generated positive cash flow of ¥1.4 billion, an increase of ¥7.4 billion. Financing activities used net cash of ¥5.8 billion, and cash and cash equivalents at fiscal year end totaled ¥22.9 billion.

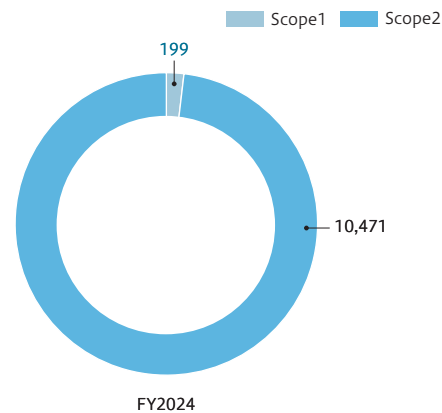
Dividends per share, Dividend payout ratio, and Total payout ratio



Dividends per share were ¥20 (¥10 interim and ¥10 year-end), the same as in the previous fiscal year. Dividend payout ratio was 54.7%, while total payout ratio was 65.9%. A dividend payout ratio of 30% is our basic dividend policy. In the event of significant short-term fluctuations in performance, we will consider stable dividend payments while pursuing a flexible capital policy.

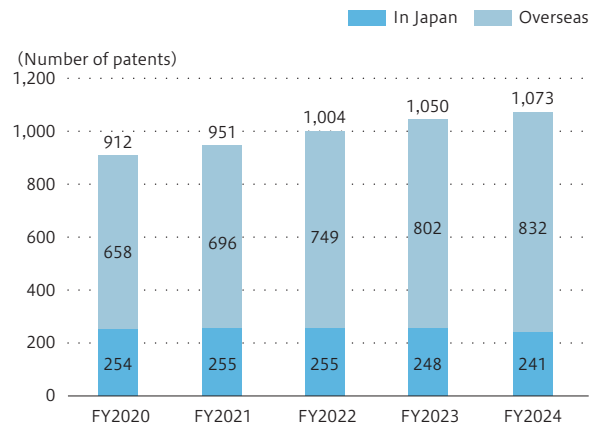
Sustainability Indicators Highlights

Greenhouse gas (GHG) emissions (t-CO₂)



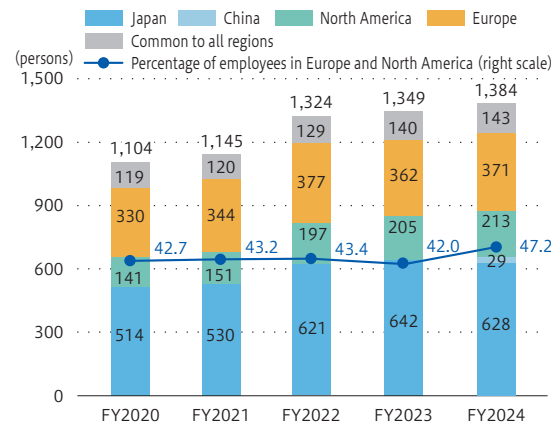
We began disclosing greenhouse gas (GHG) emissions on a consolidated basis with the figure from fiscal 2022. For fiscal 2024, the Scope 1 emissions totaled 199 t-CO₂, while Scope 2 emissions (market-based) totaled 10,471 t-CO₂, with a combined total of 10,670 t-CO₂. Since fiscal 2023, GHG emissions data for Scope 1 and 2, and for Scope 3 (Categories 4, 9, and 11) have undergone third-party verification by an external organization.

Number of patents held



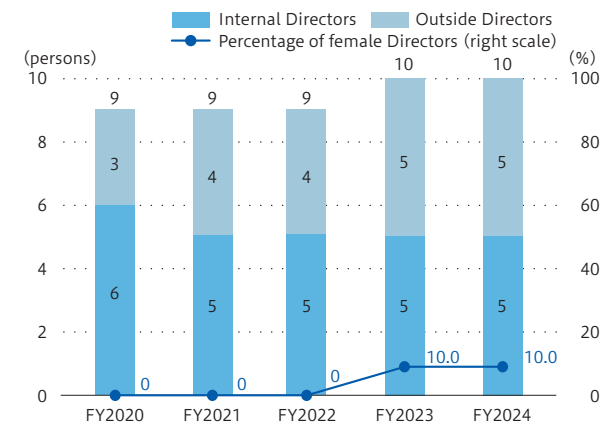
The Company held patents totaling 241 in Japan and 832 overseas totaling 1,073 at the end of fiscal 2024 on a non-consolidated basis. The number of patents held on a consolidated basis is 1,083.

Number of employees on consolidated basis by region, and Percentage of those in Europe and North America



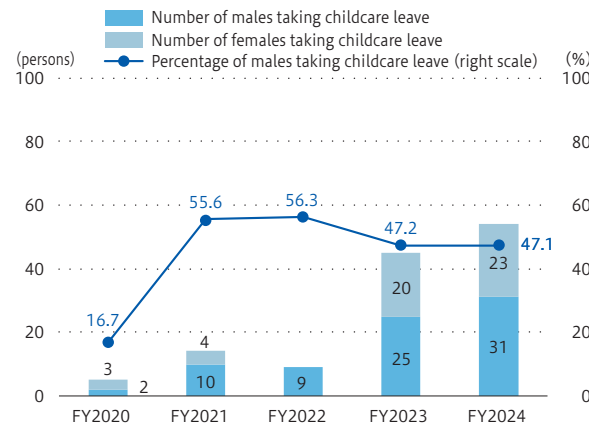
On a consolidated basis, the number of employees increased 35 from the end of the previous fiscal year to 1,384. The combined ratio of employees in North America and Europe was 47.2%. Until fiscal 2023, the number of employees in China was included in Japan's total, but starting in fiscal 2024, it is disclosed separately.

Number of Directors



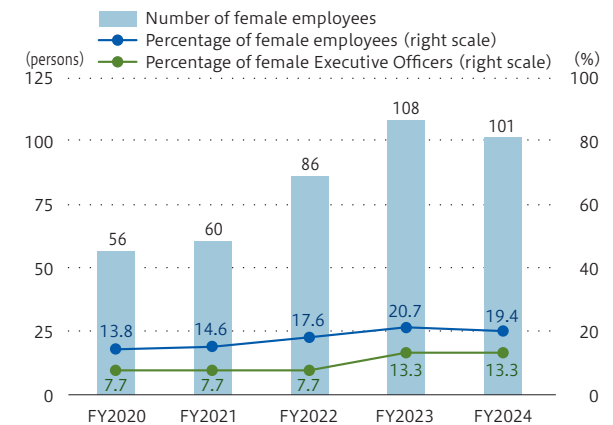
In fiscal 2024, the Company's Directors totaled ten, including five Outside Directors, and the percentage of Outside Directors came to 50%. The number of female (Outside) Directors was one, and the percentage of female Directors was 10.0%.

Number of employees taking childcare leave, and Percentage of males taking childcare leave



The number of employees who took childcare leave in fiscal 2024 was 54 (31 males and 23 females). Ratio of male employees who took childcare leave was 47.1%.

Number and percentage of female employees, and Percentage of female Executive Officers



The number of female employees on a non-consolidated basis decreased by seven from the end of the previous fiscal year to 101, representing 19.4% of the non-consolidated total employees. The Company has two female Executive Officers, representing 13.3%. We have set targets of five female managers by fiscal 2027 and three female Executive Officers by fiscal 2029.

Financial Data for the Past 11 Years

Items	Units	FY2014	FY2015	FY2016	FY2017
Net sales	(Millions of yen)	25,951	28,278	30,069	54,339
Cost of sales	(Millions of yen)	13,829	14,992	16,202	28,636
Gross profit	(Millions of yen)	12,121	13,286	13,866	25,703
Selling, general and administrative expenses	(Millions of yen)	5,054	5,667	6,052	13,386
Operating profit or loss	(Millions of yen)	7,066	7,618	7,813	12,316
Ordinary profit	(Millions of yen)	7,525	7,829	7,958	11,946
Profit or loss attributable to owners of parent	(Millions of yen)	4,833	5,001	19,732	7,777
Total assets	(Millions of yen)	49,440	48,749	101,999	138,584
Total net assets	(Millions of yen)	37,680	38,891	62,611	108,719
Interest bearing liabilities	(Millions of yen)	745	892	15,666	1,938
Net cash	(Millions of yen)	11,402	12,014	(3,569)	27,526
Equity ratio	(%)	73.3	76.1	54.0	71.7
Cash flows from operating activities	(Millions of yen)	5,494	6,499	7,225	9,233
Cash flows from investing activities	(Millions of yen)	(2,103)	(4,394)	(32,522)	(8,171)
Free cash flows	(Millions of yen)	3,390	2,105	(25,296)	1,062
Cash flows from financing activities	(Millions of yen)	(737)	(1,384)	24,648	17,493
Cash and cash equivalents at end of period	(Millions of yen)	9,730	10,439	9,668	28,320
Net assets per share	(Yen)	395.7	405.3	601.1	1,032.4
Net profit or loss per share	(Yen)	52.8	54.6	215.4	83.9
Dividends per share	(Yen)	14.3	18.0	20.0	26.0
Total dividend paid	(Millions of yen)	1,312	1,648	1,831	2,446
Dividend payout ratio	(%)	27.2	33.0	9.3	31.5
DOE (Dividend on Equity)	(%)	4.0	4.5	4.0	3.2
Ratio of gross profit to net sales	(%)	46.7	47.0	46.1	47.3
Ratio of operating profit to net sales	(%)	27.2	26.9	26.0	22.7
ROA (Return on Asset)	(%)	11.0	10.2	26.2	6.5
ROE (Return on Equity)	(%)	14.7	13.6	42.8	10.1
Capital investment	(Millions of yen)	2,475	4,296	4,576	8,757
Depreciation and amortization	(Millions of yen)	1,305	1,524	1,774	5,164
R&D expenditure	(Millions of yen)	1,309	1,404	1,383	2,114

*1: The Company conducted a 3-for-1 common stock split on October 1, 2014. However, net profit/dividend paid/net assets per share are calculated based on the assumption that the stock split was executed at the beginning of FY2012.

*2: Depreciation and amortization represents the total depreciation and amortization expense related to property, plant and equipment and intangible assets.

Financial Data for the Past 11 Years

FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
67,809	37,487	37,034	57,087	71,527	55,796	55,645
37,363	25,484	24,451	34,661	45,741	40,189	40,791
30,446	12,003	12,582	22,426	25,786	15,606	14,854
13,821	12,198	11,716	13,686	15,561	15,481	14,847
16,624	(195)	865	8,739	10,224	124	6
17,185	236	1,366	9,108	10,757	570	151
11,322	(1,095)	662	6,643	7,595	(24,806)	3,473
142,872	131,848	140,028	143,289	154,336	119,142	113,621
113,277	106,718	110,059	98,856	103,955	79,401	78,943
2,104	6,963	6,328	16,887	22,946	18,431	15,607
16,717	12,607	14,835	3,041	(2,133)	1,923	9,345
72.5	73.3	73.5	69.0	67.4	66.6	69.5
15,121	10,950	9,555	9,881	10,850	12,728	7,516
(22,399)	(12,537)	(1,230)	(4,703)	(8,663)	(5,950)	1,480
(7,277)	(1,587)	8,324	5,178	2,187	6,778	8,996
(3,271)	2,362	(6,561)	(6,663)	(1,599)	(8,122)	(5,874)
17,600	18,342	19,996	18,767	19,921	18,941	22,923
1,076.7	1,003.8	1,068.8	1,026.9	1,093.5	836.0	831.8
117.6	(11.4)	6.9	69.0	79.7	(261.0)	36.6
38.0	20.0	20.0	21.0	28.0	20.0	20.0
3,658	1,925	1,925	2,021	2,661	1,900	1,898
32.3	—	290.6	30.4	35.1	—	54.7
3.6	1.9	1.9	2.0	2.6	2.4	2.4
44.9	32.0	34.0	39.3	36.1	28.0	26.7
24.5	(0.5)	2.3	15.3	14.3	0.2	0.0
8.1	(0.8)	0.5	4.7	5.1	(18.1)	3.0
11.2	(1.1)	0.7	6.6	7.5	(27.1)	4.4
23,876	7,892	1,959	5,690	9,236	4,955	3,765
5,566	6,826	6,464	7,278	8,520	9,189	8,023
2,476	2,195	2,444	3,012	3,274	3,613	3,776

Sustainability Data

Environment

Items		Unit	Scope covered	FY2023	FY2024
Scope1	Japan	t-CO ₂	Consolidated	54	37
	Asia (excluding Japan)			0	0
	Europe			72	79
	North America			82	82
	Total			★ 209	★ 199
Scope2 (Location-base)	Japan	t-CO ₂	Consolidated	12,792	13,234
	Asia (excluding Japan)			287	290
	Europe			2,168	1,932
	North America			1,240	1,219
	Total			16,487	★ 16,693
Scope2 (Market-base)	Japan	t-CO ₂	Consolidated	7,828	8,205
	Asia (excluding Japan)			287	290
	Europe			1,207	1,265
	North America			1,240	709
	Total			10,561	★ 10,471
Scope3	1. Purchased goods and services	t-CO ₂	Consolidated	289,079	313,377
	2. Capital goods			12,441	6,468
	3. Fuel- and energy-related activities not included in Scope 1 or Scope 2			21,589	21,183
	4. Upstream transportation and distribution			6,568	7,822
	5. Waste generated in operations			1,067	1,082
	6. Business travel			1,301	1,504
	7. Employee commuting			694	727
	8. Upstream leased assets			—	—
	Total upstream			332,739	352,165
	9. Downstream transportation and distribution			2,287	2,415
	10. Processing of sold products			—	—
	11. Use of sold products			557,746	1,741,234
	12. End-of-life treatment of sold products			228	342
	13. Downstream leased assets			286	262
	14. Franchises			—	—

Items		Unit	Scope covered	FY2023	FY2024
Scope3	15. Investments	t-CO2	Consolidated	—	—
	Total downstream			560,547	1,744,255
	Other (upstream)			—	—
	Other (downstream)			—	—
	Total			893,286	2,096,421
Energy consumption	Fuel consumption	MWh	Consolidated	1,052	1,046
	Electricity consumption			36,762	41,216
	Total			37,815	42,262
Total water withdrawal		m³	Consolidated	★ 29,909	★ 28,041
Total water discharge				★ 29,446	★ 27,963
Amount of general waste discharge	Incineration waste	t	Consolidated	1,837	1,927
	Cafeteria waste			9	9
	Total			1,846	1,936
Amount of hazardous waste discharge				584	550
Green procurement	Ratio of consent acquired for green procurement standards	%	Consolidated	56.0	60.8
	Number of suppliers audited			54	68
Number of companies surveyed for inclusion of environmentally hazardous substances		Company	Consolidated	116	281
Amount of copper usage		Thousand t	Consolidated	3.76	3.87
Amount of oil and grease used		Thousand t	Consolidated	0.09	0.15
Amount of recycled plastic raw materials used		t	Consolidated	5.64	6.88
ISO 14001 certification	Number of companies certified	Company	Consolidated	5	5
	Ratio of certifications acquired	%		55.6	55.6
Number of sites where EHS audits were conducted		Company	Consolidated	4	4
Ratio of sites where environmental risk assessments have been conducted		%	Consolidated	78.6	67.0
Violations of environmental laws and regulations		Number of cases	Consolidated	0	0
Accidents and pollution causing environmental issues		Number of cases	Consolidated	0	0
Complaints on environmental issues		Number of cases	Consolidated	0	0
Fine on environmental issues		Yen	Consolidated	0	0
Environmental training	Number of participants	Person(s)	Consolidated	830	523
	Ratio of participants	%		62	38

★Third-party verified data

*The calculation method has been changed for Scope 3 categories 11 and 12 in FY2024.

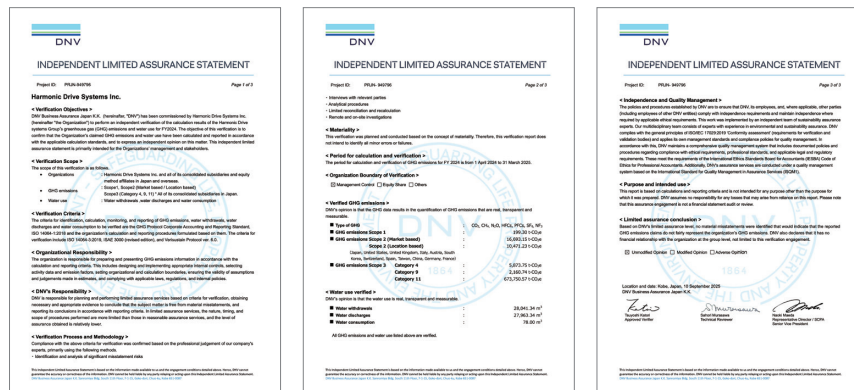
Third-party verification

In order to improve the credibility of the environmental performance data for the entire HDS Group, we have acquired an independent third-party verification by DNV Business Assurance Japan K.K. on the GHG emissions for FY2023 (Scope 1, Scope 2 (market-based/location-based)) as well as water usage (total water withdrawal, total water discharge, and water consumption). In addition, starting from the FY2024 data, we have added GHG emissions for Scope 3 (Categories 4, 9, and 11 for domestic consolidated operations) to the scope of verification. We will continue to perform verifications and broaden the coverage of verified items, striving to enhance the reliability of our sustainability data.

Verified data

- GHG emissions Scope 1
- GHG emissions Scope 2 (Market-base)
- GHG emissions Scope 2 (Location-base)
- GHG emissions Scope 3 (Categories 4, 9, and 11: domestic consolidated)
- Total water withdrawal
- Total water discharge
- Water consumption

Third-party verification statement



Social

Items	Unit	Scope covered	FY2023	FY2024
Number of employees (consolidated)	Person (s)	Consolidated	1,349	1,384
Number of employees (non-consolidated)	Male	Non-Consolidated	415	419
	Female		108	101
	Total		523	520
	Ratio of female employees		20.7	19.4
Average number of temporary and contract employees	Person (s)	Consolidated	689	328
Ratio of average number of temporary employees	%	Consolidated	33.8	23.7
Average age	Age	Consolidated	40.0	40.4
Average years of service	Year (s)	Consolidated	8.9	8.6
Number of foreign employees	Male	Consolidated	59	47
	Female		28	29
	Total		87	76
	Ratio of foreign employees		6.4	5.5
Number of newly graduated recruits	Male	Consolidated	18	16
	Female		5	4
	Total		23	20
Number of mid-career recruits	Male	Consolidated	68	52
	Female		24	18
	Total		92	70
Retention of newly graduated recruits (turnover rate after 3 years)	Male	Consolidated	6.0	2.5
	Female		0.0	0.0
	Total		6.0	2.2
Turnover rate	%	Consolidated	8.6	11.6
Turnover rate for personal reasons retirees	%	Consolidated	8.3	11.6
Managers	Male	Consolidated	205	210
	Male (foreign nationals)		8	6
	Female		14	13
	Female (foreign nationals)		0	0
	Total		219	223
	Ratio of female managers		6.4	5.8
Executive Officer	Male	Consolidated	29	26
	Male (foreign nationals)		1	2
	Female		2	3
	Female (foreign nationals)		0	0
	Total		31	29
	Percentage of female Executive Officers		6.5	10.3

Sustainability Data

Social

Items		Unit	Scope covered	FY2023	FY2024
Employees with disabilities	Male	Person(s)	Consolidated	24	25
	Female			4	5
	Total			28	30
	Ratio of employees with disabilities	%		2.1	2.2
Average monthly overtime hours		Hours	Consolidated	9.7	16.3
Percentage of employees who took paid leave		%	Consolidated	66.7	80.0
Number of employees who took childcare leave	Male	Person(s)	Consolidated	25	31
	Female			20	23
	Total			45	54
Ratio of males who took childcare leave		%	Consolidated	47.2	47.1
Average number of labor-management meetings held		Times	Consolidated	9	12
Average number of Safety and Health Committee held		Times	Consolidated	9	12
Employee training on safety and health	Number of meetings held	Times	Consolidated	82	83
	Number of participants	Person(s)		641	734
Number of ESH risk assessments		Number of cases	Consolidated	31	29
Stress check inspection rate		%	Consolidated	90.1	85.3
Harassment prevention training	Number of meetings held	Times	Consolidated	9	9
	Number of participants	Person(s)		320	305
	Ratio of participants	%		23.7	22.0
Number of child labor, forced labor, human trafficking		Number of cases	Consolidated	0	0
Number of participants in special trainings (master's, doctoral, MBA, MOT, overseas training, overseas language study, etc.)		Person(s)	Consolidated	5	4
Number of employees taking correspondence education programs		Person(s)	Consolidated	185	382
Certification status (including ISO 9001 and other industry-specific standards)		Company	Consolidated	7	8
Number of patents held		Number of cases	Consolidated	1,050	1,083
Corporate citizenship (social contribution) activities	Community cleanups	Times	Consolidated	10	14
	Harmonic Lectures		Non-Consolidated	1	1
	Harmonic Concerts			1	1
	Lessons in educational facilities			5	6

Governance

Items			Unit	Scope covered	FY2023	FY2024
Directors	Internal / Non-Independent	Male	Person (s)	Non-Consolidated	5	5
		Female			0	0
		Total			5	5
	Independent Outside	Male	Person (s)		4	4
		Female			1	1
		Total			5	5
	Total		Person (s)		10	10
	Ratio of female Directors		%		10.0	10.0
Ratio of Independent Outside Directors			%	Non-Consolidated	50.0	50.0
Number of Board of Directors meetings			Times	Non-Consolidated	18	20
Average attendance at Board of Directors meetings			%	Non-Consolidated	98.5	99.5
Corporate Auditors	Internal / Non-Independent	Male	Person (s)	Non-Consolidated	2	2
		Female			0	0
		Total			2	2
	Independent Outside	Male	Person (s)	Non-Consolidated	2	2
		Female			0	0
		Total			2	2
	Total		Person (s)	Non-Consolidated	4	4
	Ratio of female Corporate Auditors		%	Non-Consolidated	0.0	0.0
Ratio of Independent Outside Corporate Auditors			%	Non-Consolidated	50.0	50.0
Number of Board of Corporate Auditors meetings			Times	Non-Consolidated	17	17
Average attendance at Corporate Auditors meetings			%	Non-Consolidated	100	100
Number of whistleblowing cases			Number of cases	Consolidated	35	78
Number of corruption cases			Number of cases	Consolidated	1	2
Amount of fines related to corruptions			Yen	Consolidated	0	0
Compliance trainings	Number of meetings held		Times	Consolidated	4	8
	Number of participants		Person (s)		931	1,020
	Ratio of participants		%		69.0	73.7
Political donations			Yen	Consolidated	0	0
Number of corruptions and briberies detected			Times	Consolidated	0	0
Number of violations of antitrust laws			Times	Consolidated	0	0
Number of information security incidents			Times	Consolidated	1	0
Information security compliance ratio			%	Consolidated	97.9	99.3
Awareness training to prevent information security breach	Number of trainings held		Times	Consolidated	29	30
	Number of participants		Person (s)		1,696	1,691
Number of information security due diligence performed by a third party			Times	Consolidated	16	28

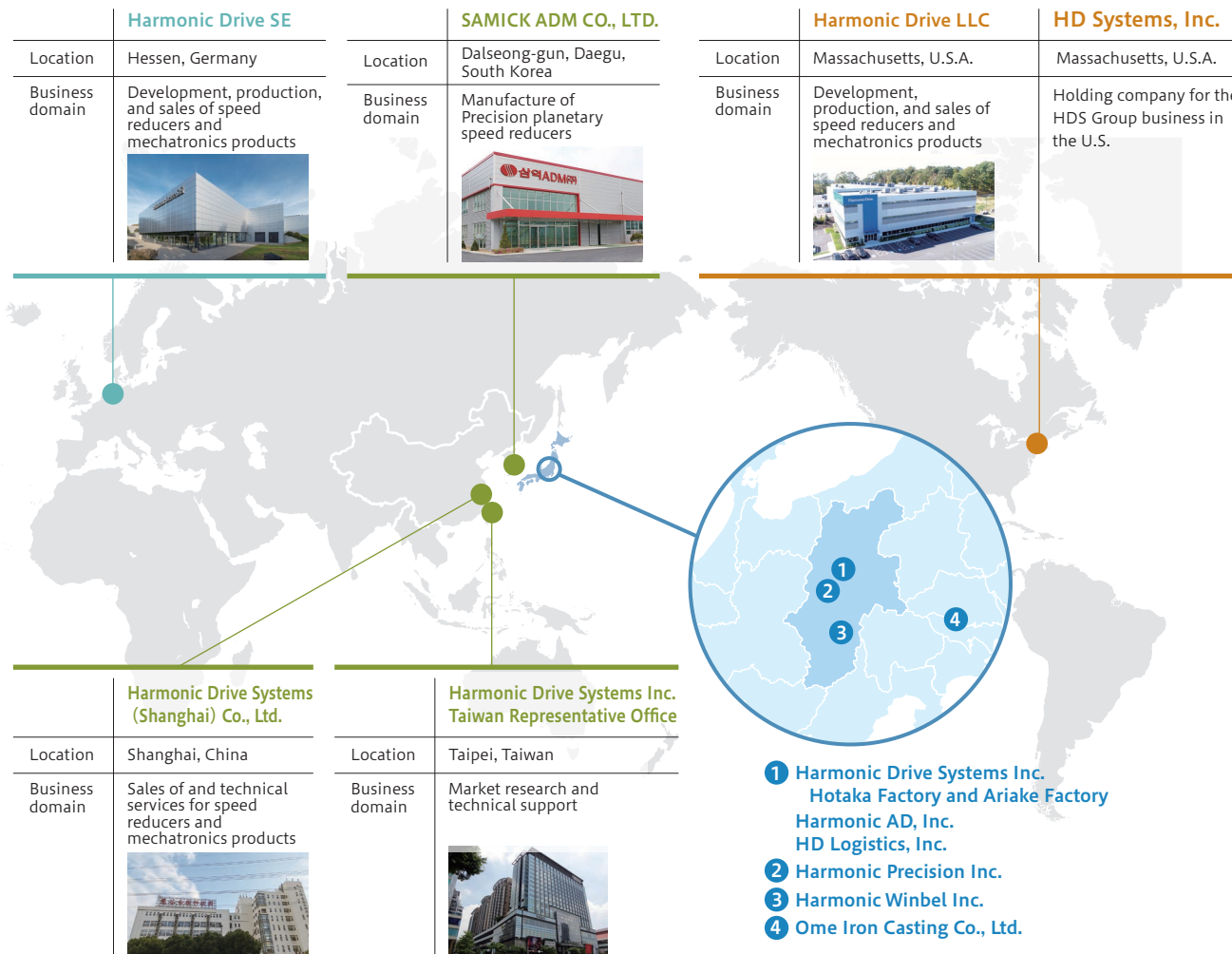
Global Network

■ Establishing a global supply network of high-quality product lineups

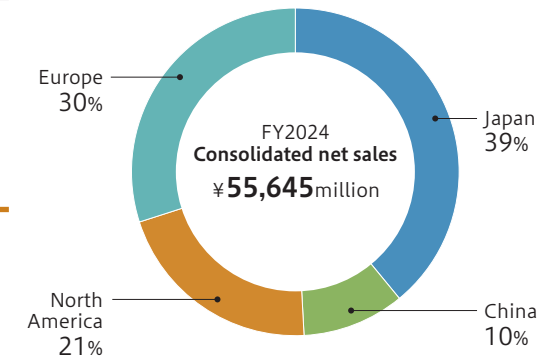
The HDS Group has production bases in Japan, Germany, the U.S., and South Korea and also conducts development in Japan, Germany, and the U.S. The

Company provides sales and technological services in Japan and the Asian region, while the German subsidiary, Harmonic Drive SE and its eight consolidated subsidiaries are in charge of Europe, Middle East, Africa, India, and South America. Harmonic Drive LLC, the U.S. subsidiary, covers North America.

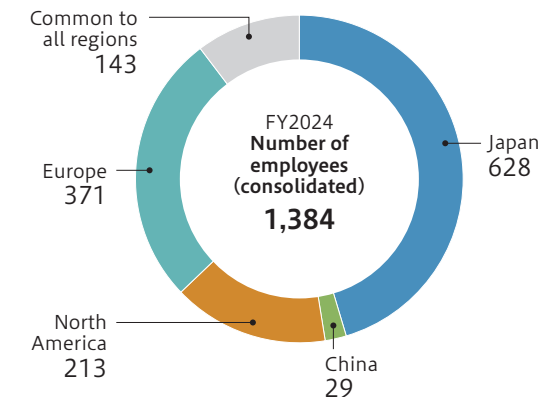
The Chinese subsidiary, Harmonic Drive Systems (Shanghai) Co., Ltd., provides sales and technological services to the Chinese market. The South Korean subsidiary, SAMICK ADM CO., LTD., manufactures Precision planetary speed reducers.



● Composition of consolidated net sales by region (%)



● Number of employees (consolidated) by region (persons)



Corporate Overview

■ Corporate Information (As of March 31, 2025)

Corporate Name	Harmonic Drive Systems Inc.
Location of head office	6-25-3 Minami-Oi, Shinagawa-ku, Tokyo 140-0013, Japan
Phone Number	+81-3-5471-7800
Corporate website	https://www.hds.co.jp/english/
Founded	October 27, 1970
Listed stock exchange	Tokyo Stock Exchange (Standard Market) Securities code: 6324
Business domain	Development, production, and sales of precision speed reducers and applied mechatronics products (actuators and motion control equipment)
Fiscal year end	March
Share capital	¥7.1 billion
Net sales	Consolidated: ¥55.6 billion Non-consolidated: ¥30.5 billion
No. of employees	Consolidated: 1,384 Non-consolidated: 510
Group companies	Consolidated subsidiaries: 18, Equity-method affiliates: 1



Hotaka Factory



Ariake Factory

■ Major Offices and Factories

Head Office	Shinagawa-ku, Tokyo, Japan	Taiwan Representative Office	Taipei City, Taiwan
Tokyo Office	Shinagawa-ku, Tokyo, Japan	Hotaka Factory	Azumino-shi, Nagano, Japan
Kohshin Office	Azumino-shi, Nagano, Japan	Ariake Factory	Azumino-shi, Nagano, Japan
Chubu Office	Meito-ku, Nagoya-shi, Aichi, Japan	Matsumoto Factory	Matsumoto-shi, Nagano, Japan
Kansai Office	Yodogawa-ku, Osaka-shi, Osaka, Japan	Toyoshina Factory	Azumino-shi, Nagano, Japan
Kyushu Office	Hakata-ku, Fukuoka-shi, Fukuoka, Japan	Komagane Factory	Komagane-shi, Nagano, Japan

Name of consolidated subsidiary	Percentage of voting rights	Location	Business domain
HD Logistics, Inc.	100.0%	Azumino-shi, Nagano, Japan	Logistics
Harmonic Precision Inc.	100.0%	Matsumoto-shi, Nagano, Japan	Production and processing of cross roller bearings
Harmonic AD, Inc.	100.0%	Azumino-shi, Nagano, Japan	Production of Precision planetary speed reducers
Harmonic Winbel Inc.	100.0%	Komagane-shi, Nagano, Japan	Development, mass production support, manufacturing and sales of various motors
HD Systems, Inc.*	100.0%	Beverly, Massachusetts, U.S.A.	Investment in Harmonic Drive LLC, research and study of speed reducers and mechatronics products
Harmonic Drive LLC*	100.0% (100.0%)	Beverly, Massachusetts, U.S.A.	Development and production of speed reducers and mechatronics products, and sales in North America region
Harmonic Drive Systems (Shanghai) Co., Ltd.*	100.0%	Shanghai, China	Sales and technical services of speed reducers and mechatronics products
SAMICK ADM CO., LTD.*	51.0% (51.0%)	Dalseong-gun, Daegu, South Korea	Production of Precision planetary speed reducers
Harmonic Drive SE and 8 consolidated subsidiaries*	100.0%	Limburg a.d. Lahn, Hessen, Germany	Development and production of speed reducers and mechatronics products, and sales in Europe, Middle East, Africa, India and South America region

*1: Fiscal year ends on December 31 for the consolidated subsidiaries marked with *.

*2: Percentage of voting rights () indicates the percentage of indirect ownership.

Name of equity-method company	Percentage of voting rights	Location	Business domain
Ome Iron Casting Co., Ltd.	49.2%	Nishitama-gun, Tokyo, Japan	Development, production, and sales of high-strength cast-iron products

■ HDS Report 2025 Editors Sustainability Management Office



KAZUHA YAMAKAWA MAKIKO ONO AOI ANDO

From the editors

Thank you for reading the HDS REPORT 2025. We created the content of this report to more effectively meet the needs of investors while sharing our commitment to showcasing various cross-organizational initiatives taking root in the field, along with authentic voices from the front lines. We hope that this report, which serves as both a record of the HDS Group's evolution and a platform for dialogue, will support constructive engagement with our stakeholders.

Stock Information

■ Stock Information (As of March 31, 2025)

Total number of shares authorized to be issued 356,400,000 shares
Total number of issued and outstanding shares 96,315,400 shares
Number of shareholders 7,660

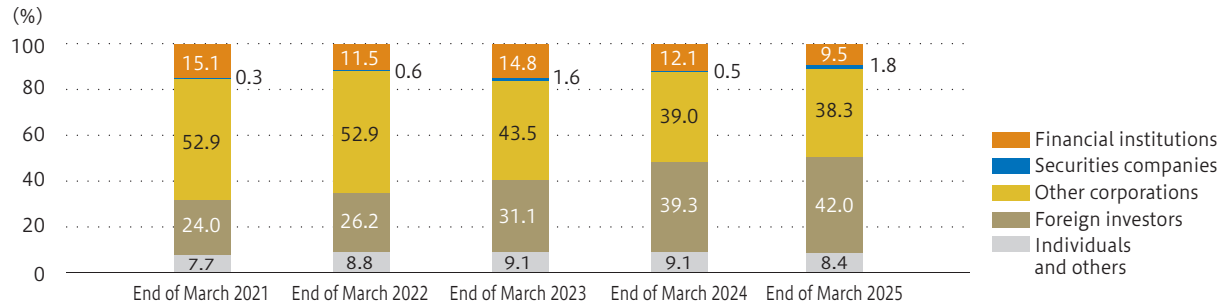
Listed stock exchange Tokyo Stock Exchange (Standard Market)
Securities code 6324
Fiscal year From April 1 of each year to March 31 of the following year
Ordinary General Meeting of Shareholders Held in June every year
Record date March 31
Interim dividend September 30
Transfer agent 1-3-3, Marunouchi, Chiyoda-ku, Tokyo 100-8241 Japan
Special account manager Mizuho Trust & Banking Co., Ltd.
Handling office 1-3-3, Marunouchi, Chiyoda-ku, Tokyo 100-8241 Japan
Stock Transfer Agency Department, Head Office, Mizuho Trust & Banking Co., Ltd.

■ Status of Major Shareholders (As of March 31, 2025)

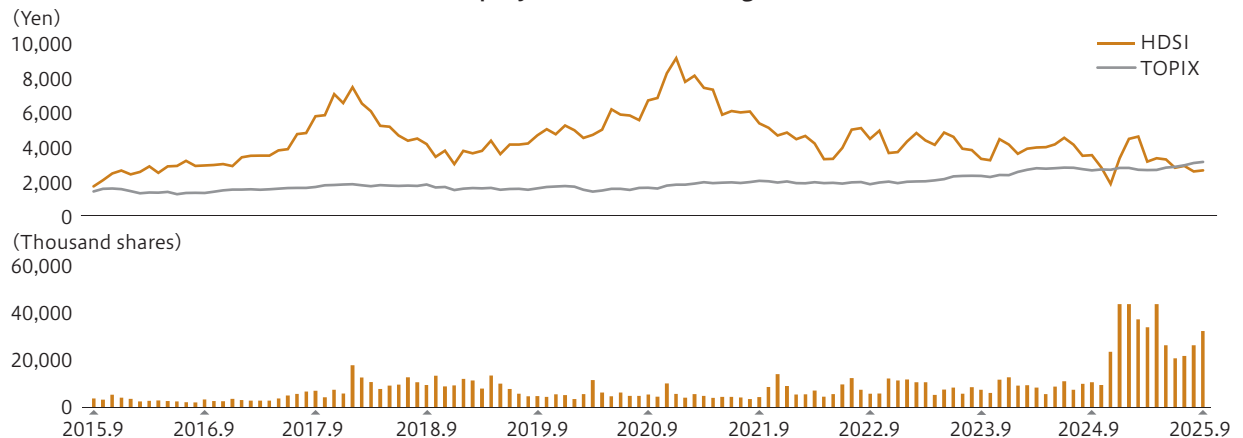
Name of shareholder	No. of shares held (thousand)	Shareholding ratio (%)
KODEN Holdings Co., Ltd.	33,490	35.28
Custody Bank of Japan, Ltd. (Trust Account)	4,654	4.90
STATE STREET BANK AND TRUST COMPANY 505001	4,112	4.33
INTERACTIVE BROKERS LLC	3,151	3.32
Norimitsu Ito	3,041	3.20
STATE STREET BANK WEST CLIENT-TREATY 505234	2,490	2.62
Control trust (A030) trustee SMBC Trust Bank Ltd.	2,176	2.29
The Master Trust Bank of Japan, Ltd. (Trust Account)	1,933	2.03
MLI FOR CLIENT GENERAL OMNION COLLATERAL NON TREATY-PB	1,718	1.81
JP MORGAN CHASE BANK 385840	1,344	1.41
Total	58,114	61.23

* The shareholding ratios above are calculated excluding 1,441,891 shares of treasury stock.

■ Percentage of Shares Held by Type of Shareholder



■ Stock Price Chart Trends in the Company's Stock Price, Trading Volume, and TOPIX



■ Comparison of Stock Performance

(TSR: Total Shareholder Return, %)

Investment period	1 year (March 31, 2024 - March 31, 2025)	3 years (March 31, 2022 - March 31, 2025)	5 years (March 31, 2020 - March 31, 2025)	10 years (March 31, 2015 - March 31, 2025)
Harmonic Drive Systems Inc.	-20.2	-23.5	-30.8	28.0
TOPIX	-1.5	47.2	113.4	117.4
TOPIX Sector Indices (Machinery)	-4.3	51.9	133.7	126.8

* The table above shows the cumulative return on investment including dividends as of March 31, 2025, if investments were made 1, 3, 5, and 10 years ago.

■ Stock Price Valuation

	FY2020	FY2021	FY2022	FY2023	FY2024
Stock price at end of term (Yen)	7,480	4,220	4,395	3,985	3,160
PBR (Times)	7.0	4.1	4.0	4.8	3.8
ROE (Times)	0.7	6.6	7.5	-27.1	4.4
PER (Times)	1,087.2	61.1	55.2	-15.3	86.4
Dividend yield (%)	0.3	0.5	0.6	0.5	0.6
Market capitalization at end of period (Billions of yen)	7,204	4,065	4,233	3,838	3,044



Contact : [Sustainability Management Office](#)

TEL: +81-3-5471-7810 E-mail: sustainability@hds.co.jp
6-25-3 Minami-Oi, Shinagawa-ku, Tokyo 140-0013, Japan

<https://www.hds.co.jp/english/>



Printed in January 2026