

Mission Statement (revised in January 2021)

As a global corporation continually striving to be the world's largest and most respected international manufacturer of turning centers, machining centers, mill-turn centers, grinders, and process automation, we will:

Enable our customers to maximize their potential and excel in their respective markets by continually striving to provide innovative, accurate, and trouble-free machines, automation systems, and digital technology at competitive prices;
Increase our customers' productivity and efficiency through our latest developments in technology as manifested by our increasingly accurate and progressive manufacturing capabilities;
Support our customers with our knowledgeable and responsive sales, applications, and service personnel.

As befits a worldwide corporation, we will:

Foster a fair and open corporate culture, utilizing appropriate management initiatives;
Play hard and be dynamic to enrich our private lives, study continuously and be open to advance our professional career, and work together and be innovative to bring innovation to the workplace;
Respect each other's opinions and continually develop through fair competition.

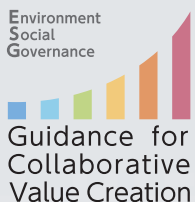
As profitability is a goal of all healthy business organizations and in keeping with the true nature of the machine tool industry, we will:

Work to increase the value of our company, the investment of all shareholders knowledgeable of the true nature of the machine tool industry, and the prosperity of our partners;

Always remember that the pricing of our products and services is an integral factor of the prosperity and longevity of the corporation;
Generate suitable profits to ensure the cash flow necessary to provide for the healthy operation of our corporation, research and development, stable customer services, employee training and development, and the maintenance of safe and efficient manufacturing facilities.

As an industry leader and responsible corporate citizen, we will:

Contribute our fair share to our local community and society;
Conserve environmental resources at all times to preserve the global environment;
Incorporate the highest standard of ethics while still encouraging an aggressive approach to our business activities.



This Integrated Report was created by referring to the "The Guidance for Collaborative Value Creation" by Ministry of Economy, Trade, and Industry of Japan and "The International <IR> Framework" by the International Integrated Reporting Council.

Integrated Report 2022 Contents

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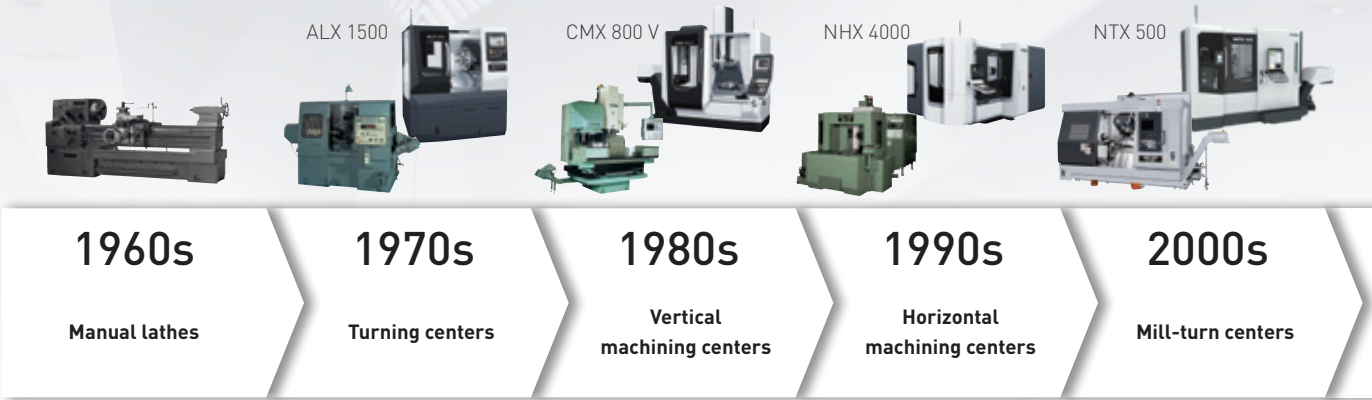
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Please click on  to find related videos on our website.
https://www.dmgmori.co.jp/corporate/en/ir/ir_library/annual_report.html

Changes in Societal Needs and Development of DMG MORI

DMG MORI has continuously evolved its business model and improved its products and services in response to major societal changes, which occur each decade. We will continue to aim for further growth by providing value that reflects the demands of society.

Transition of DMG MORI's products



Societal needs

- Development of public infrastructure
- High economic growth and industrialization (mass production and mass consumption)
- Global production
- Energy-saving and resource-saving (lightweight and compact products)
- Declining birthrate and aging population
- Shortage of engineers and operators
- IT (Information Technology)

DMG MORI's initiatives

- Providing machine tools that enable mass production
- Manufacturing and selling lathes with numerical controls
- Establishing overseas business locations
- Providing machine tools for machining complex parts
- Providing high-precision, high-speed, and high-rigidity machine tools
- Providing interactive operation systems

Completion of Nara Campus

Construction and operation of Iga Campus begins

Establishment of MORI SEIKI G.M.B.H. (Germany)
Establishment of MORI SEIKI U.S.A., Inc.

Establishment of an overseas dealer network

Capital and business alliance with DMG

Average price per unit

JPY 10 mil.

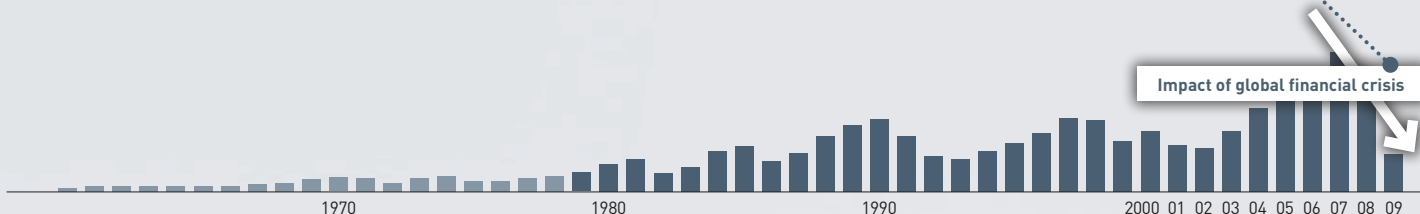
JPY 20 mil.

Sales revenue
Apr.2007-Mar.2008
JPY 202.3 bn.

Down by approx.
 $\frac{2}{3}$

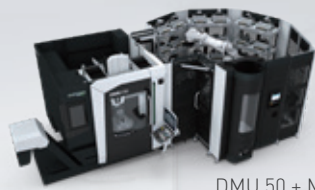
Sales revenue
Apr.2009-Mar.2010
JPY 66.4 bn.

Sales revenue





DMC 125 FD duoBLOCK



DMU 50 + MATRIS



LASERTEC 3000
DED hybrid



WH-AMR



Technology Cycles "Chip-Braking"

2010s

5-axis machines

2020~

Machining Transformation ("MX"):

Process integration, Automation, Digital Transformation ("DX"), and Green Transformation ("GX")
Additive Manufacturing ("AM")

- High-mix low volume
- Industry 4.0 (connectivity)

- Sustainability
- Automation

- Growing need for integration of hardware and software
- Growing need for high precision and environmentally-friendly technology
- Growing need to restructure global supply networks

Providing machine tools' software products that enable efficiency to streamline production processes

- Automation system
- Additive manufacturing ("AM")
- CELOS

Providing digital services in accordance with customer needs

- Digital Twin Showroom
- Digital Twin Test Cut
- Portal Site / E-Commerce
- Providing environmentally-friendly products

Evolution of process integration, automation, digital transformation, and green transformation

Aiming to stabilize business performance with abundant order backlog

Our vision

A solution provider committed to maximize customers' efficiency with its machine tools, automation, digital transformation, and service

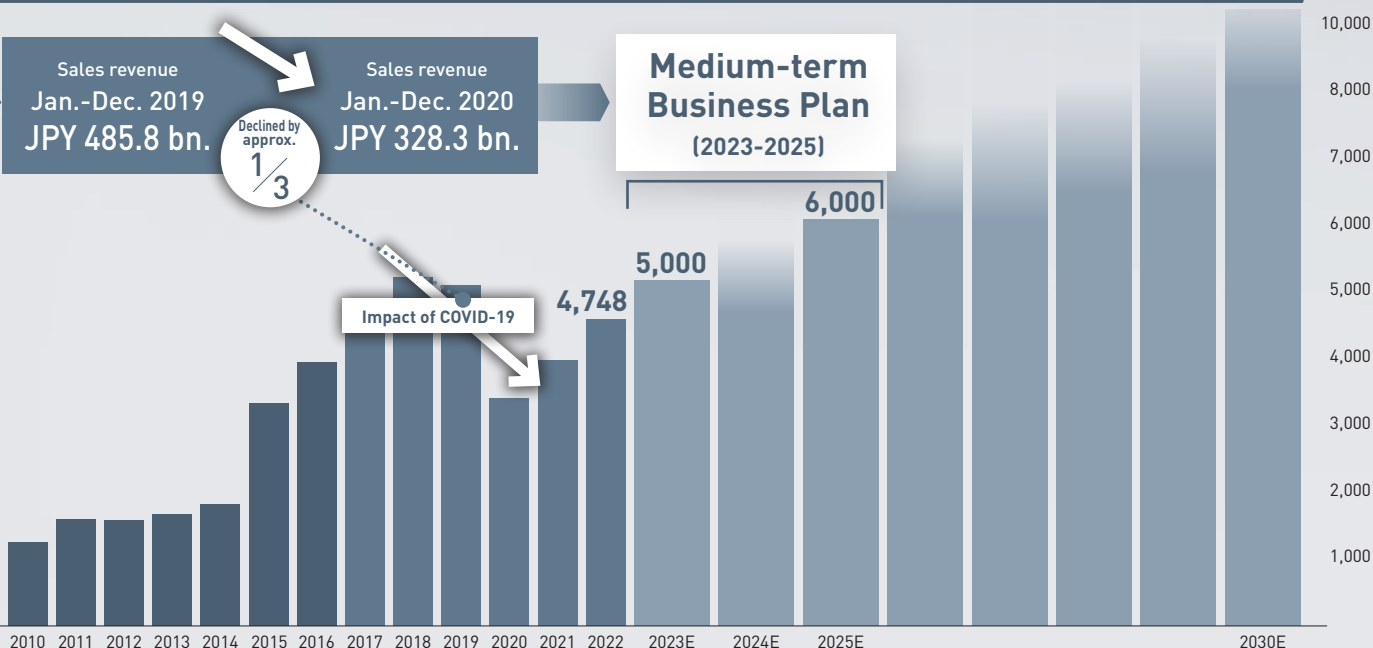
Launch factories in the USA and China
Strengthen brand recognition by promoting direct sales with DMG

Data-driven sales activities by global sales channels
Increase customer contacts by enhancing functions of my DMG MORI

JPY 30 mil.

JPY 40 mil.

>JPY 50 mil.



Machining Transformation (MX)

-DMG MORI aims for ultimate Green Transformation (GX) through process integration and automation. We will contribute to global environmental protection by making the entire machining process leaner through Digital Transformation (DX).-

Production schedule



JOB SCHEDULER
(On-machine and PC)



Customers can create and change machining schedules of workpieces



JOB MANAGER
(On-machine and PC)



Customers can register workpiece information (drawings, materials, etc.)

CELOS PC Version (PC)



CELOS (On-machine)

Preparation for machining

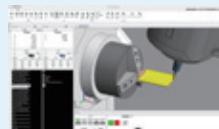


APPLICATION CONNECTOR
(On-machine and PC)



Customers can connect remotely to CAD / CAM and simulate the machining operation on CELOS

CELOS DYNAMICpost



Customers can create optimal part machining programs



JOB MANAGER
(On-machine and PC)

Customers can register cutting tools, clamp jigs, machining programs, work instructions, setup procedures, etc., and centrally manage workpiece information

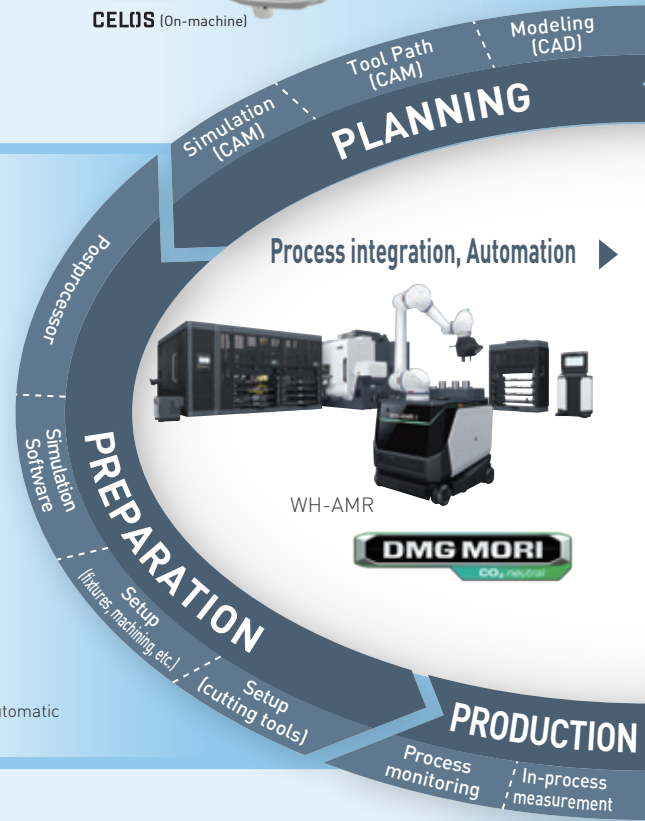
Technology Cycles
(On-machine only)

Customers can realize complicated machining easily and quickly



Tool Visualizer

Customers can make contact-less and automatic tool measurements in the machine tool



Production

Peripheral equipment / Machining solution



AI Chip Removal



Zero Sludge Coolant Tank



zeroFOG



Customers can realize smooth machining with the assistance of various applications



Non-contact on-machine measuring system

Foundation of services

Employees (Consolidated)

Number of employees

Approx. 12,000

Nationalities

59

Sales and services locations

113

Diversified Organization

Digital Transformation (DX)

Service / Training

CELOS Club

Providing software and services that strongly support customers' introduction of digitization and help them improve their productivity



myDMG MORI

Comprehensive customer service portal



Digital academy
Process Design Advisor
movie 100

Maintenance Spare Parts Training

SERVICES AND TRAINING

Green Transformation (GX)

Optimization of management resources
(reduction of work in process, inventories, and consumables)

Reduction of CO₂ emissions



Third-party evaluation
(Carbon footprint reduction targets with SBT certification / Publication in compliance with TCFD recommendations)



MONITORING

CMM Inspection

Monitoring



MESSENGER
(On-machine and PC)



Customers can visualize the operation status of machines connected via a network

Customers can review alarm history and identify major reasons for machine downtimes

Customers can check anytime, anywhere, whether from machines, PCs, or smartphones



IoT connector

Supporting widely-used open communication methods (such as MTConnect, OPC UA, and MQTT)

PC dedicated to communications that enhances the network reliability of the machine

MTConnect is a trademark or registered trademark of The Association For Manufacturing Technology.
OPC UA is a trademark or registered trademark of the OPC Foundation.
MQTT is a trademark or registered trademark of International Business Machines Corporation.



CONDITION ANALYZER
(On-machine only)

Detects machine and machining problems at an early stage through various integrated sensors which analyze the machine movement



TULIP

Platform to create applications for manufacturing support application

Merger of European and Japanese strengths



Foundation of customers

Worldwide product delivery

Customer locations: **88** Existing customers: over 100,000
Incl. potential customers: approx. 300,000

Key Points of the Medium-term Business Plan 2025

Management Objectives

Provide customers with higher value-added products, systems, and services through process integration, automation, digital transformation and green transformation

Improve profitability derived from higher unit prices and lower discount rates by providing value added products and services

Aim for stable growth in sales revenues and profits and realize effective use of resources driven by abundant order backlog

Further strengthen financial structure by improving the ability to generate free cash flow

Stable increase of dividends per share

(JPY 10 per share increase every year, JPY 100 per share in the final year of the Medium-term Business Plan)

Societal Needs

Fundamental Challenges

Operator shortage,
Declining birthrate, EVs
High-mix low-volume
production,
Reduction of CO₂
emissions



New Challenges

Inflation

Changes in energy policies

Supply chain optimization
including effects by technology
friction

Effective utilization of management resources (raw materials, labor, etc.)

Major Management Policies

Stabilization of DMG MORI's Top-line = leaner use of Management Resources, expansion of Stable Profit Centers

Evolution of Business Model

- High value-added machines (5-axis machine, Mill-turn centers, AM)
- High value-added business
- Strengthening and expanding production technology engineering (offering the entire machining processes)
- Expanding sales of DMQP
- Expanding maintenance and services
- Addressing environmental protection and improvement of economic efficiency through Green Transformation

Evolution of Management Base

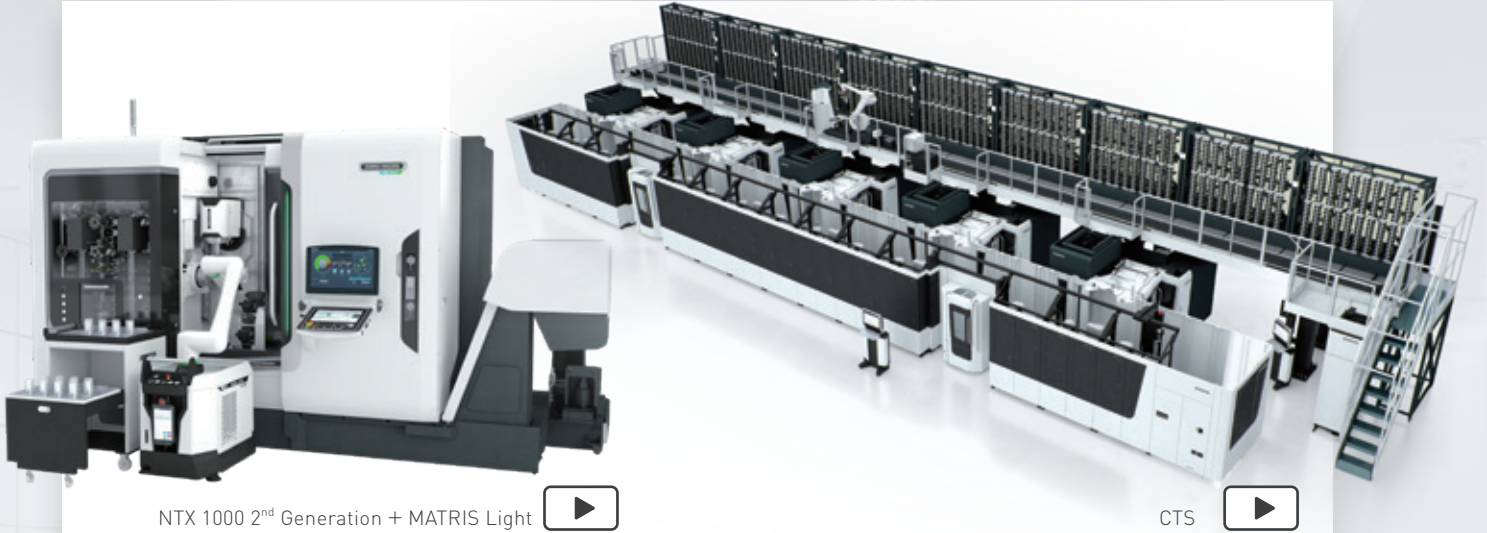
- Establishing a robust supply chain
- Expanding capacity for in-house production of components
- Investing in employees who enable the supply of high quality products and services

Sustainability and Societal Responsibility

- Achieving carbon neutrality in all scopes of the value chain
- Supporting the expansion of training opportunities around the world

Process Integration → Automation → Green Transformation

Digital Transformation



NTX 1000 2nd Generation + MATRIS Light



CTS



Process Integration and Automation

Realizing ultra-high precision

Improving productivity

Optimizing management resources
(reduction of operators, materials, and work-in-progress)

Reducing CO₂ emissions

Green Transformation



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 OPC UA is a trademark or registered trademark of the OPC Foundation.
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Digital Transformation

Providing optimal solutions to customers

Sustainability (ESG / CSR)

Investment for Sustainable Growth

Capital expenditure
JPY 100 billion (3-year total)

Investment in management base and robust growth

- Establishment of new factory, extension or renovation of existing factories
(Iga Campus, Nara System Solution factory, European factories, Americas Service Centers, Academy, TAIYO KOKI, Magnescale, Saki Corporation, etc.)

Environmental protection / ESG initiatives

- Environmentally-friendly casting production
- European and Indian casting foundries
- power generation using solar panels

Investment in R&D
JPY 100 billion (3-year total)

Research and Development expenses

- Development of cutting-edge machining technology
- Development of measuring technology and AM
- Development of new, high value-added machines
- Development of software products
- Development of advanced mill-turn centers
- Development of advanced 5-axis machines

Employee Engagement

Salary Revision

- Revision of starting salaries for new graduates
- Salary revision for employees globally

Annual working hours
2,000 hours / person

Annual paid vacation:
20 days / person

Promotion of employee wellness P.77

Supporting women in the workplace P.58

Increase ratio of men taking childcare leave P.56

Strengthening Supply Chain

In-house production of key components + Global expansion P.48

Expanding casting production capacity: expansion to India and Poland

Enhancing Supplier Engagement: Progress on INTEGRITY NEXT P.79

Reduction of CO₂ Emissions

CO₂-free products (Scope 1, Scope 2 and Scope 3 upstream) (limited guarantee by PricewaterhouseCoopers GmbH) P.48

Introduction of large-scale solar power generation systems P.69

CO₂ emissions reduction targets with SBT* certification (base year 2019) P.73

	2025	2030
Scope 1+2	△ 25.2%	△ 46.2%
Scope 3	△ 7.4%	△ 13.5%

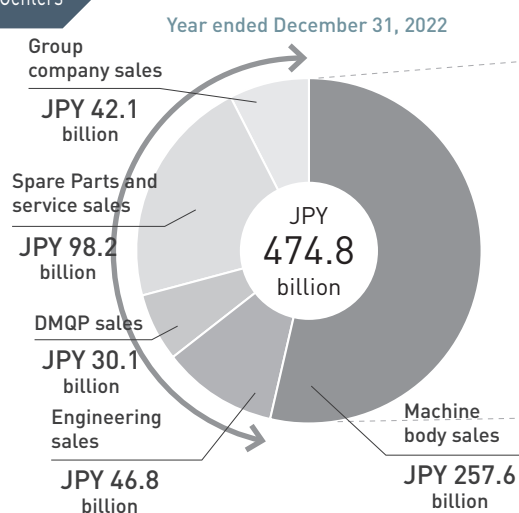
Publication in accordance with TCFD recommendations

*Abbreviation for Science Based Targets

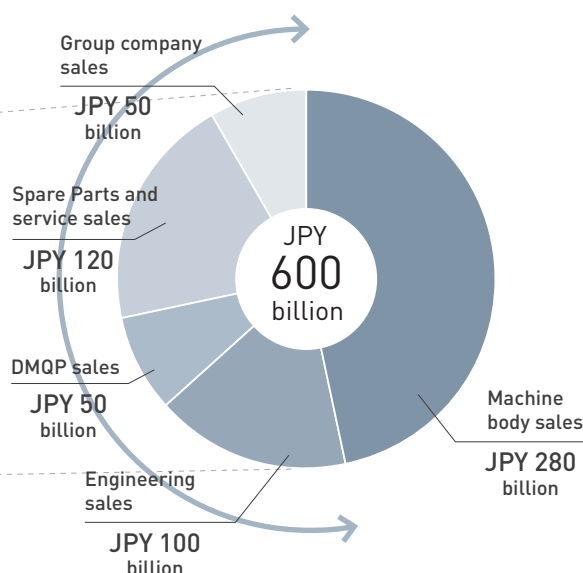
Financial targets

Financial
Performance Target:
Expansion of Stable
Profit Centers

Establishment of
a stable profit structure



Year ending December 31, 2025 (plan)



Major
Financial
Targets

	2022 Results	2025 Target
Sales revenue	JPY 474.8 billion	JPY 600 billion
Operating profit	JPY 41.2 billion	JPY 72 billion
(Operating profit margin)	8.7 %	12.0 %
Net profit	JPY 25.4 billion	JPY 48 billion
(Net profit margin)	5.4 %	8.0 %
ROE	11.1 %	> 12.0 %
Dividends per share	JPY 70	JPY 100
Gross interest-bearing debt*1	JPY 91.1 billion	JPY 0 billion
(including hybrid capital*2)	JPY 209.8 billion	JPY 110 billion
Net interest-bearing debt*3	JPY 47.6 billion	JPY △30 billion
(including hybrid capital)	JPY 166.4 billion	JPY 80 billion
Shareholders' equity ratio	36.1 %	> 50.0 %

*1 Long- and short-term borrowings + convertible bonds with stock acquisition rights ("convertible bonds")

*2 Perpetual subordinated bonds and loans

*3 (Long- and short-term borrowings + convertible bonds) - (cash and cash equivalents + short-term financial assets)

Message from Group CEO



Masahiko Mori

CEO, DMG MORI Group
President, DMG MORI CO., LTD., Dr. Eng.
Chairman of the Supervisory Board, DMG MORI AG

What we aim for in the Medium-term Business Plan 2025

Machining Transformation (MX): Evolution of Process Integration, Automation, Digital Transformation, and Green Transformation

Why did DMG MORI formulate the Medium-term Business Plan?

In 2022, consolidated order intake hit a peak of JPY 542.4 billion, and consolidated operating profit and profit margin also reached record highs. After reaching extremely high levels of orders of about JPY 150 billion in the first and second quarters, respectively, consolidated order intake has entered a gradual adjustment phase from the third quarter. However, our strategic focus topics of process integration, automation, digital transformation, and green transformation strategies have been on track, and the improvements in profitability became noticeable as the discount rate declined in line with strengthening the value proposition to customers. In addition, our expansion into new business fields such as medical, space, and energy focusing on CO₂ emission-reduction, coupled with our abundant order backlog, increased our resistance to downward trends in demand and has given us confidence in our ability to pursue a sustainable profit increase. Therefore, to share our management policies with our stakeholders, on December 14, 2022, DMG MORI announced a three-year medium-term business plan starting in 2023 and ending at the end of 2025.

DMG MORI has promoted process integration through 5-axis machines, mill-turn centers and AM (Additive Manufacturing), and automation together with robots and other peripheral equipment. These are our answers to societal needs such as global operator shortages, rising wages, and aging populations. The technology frictions between the United States and China since the middle of 2018, demands for economic security, and COVID-19-induced movement restrictions in 2020 have accelerated demand for process integration and automation in the market. And the on-going invasion of Russia into Ukraine that started around the end of February 2022 has led to reviewing where their energy, food or other resources are coming from, and restructuring supply chain considering geopolitical risks. Whatever the changes in the environment may be, it is essential to make more effective use of all management resources, and to establish a lean machining process through process integration and automation, which DMG MORI has been advocating. This lean machining process also leads to green transformation, which contributes to the reduction of carbon footprints.

Furthermore, in terms of digital transformation it is becoming crucial to collect, analyze, and visualize information generated in the entire process through AI and digital technology for continuous process optimization. We optimize machining processes through process integration and automation, thereby contributing to green transformation, and manage this entire process by digital technology. We have defined this management system as “Machining Transformation (MX)”, a revolution in the machining industry. The medium-term business plan 2025 is aimed at promote providing our customers with consistent machining system.

This management strategy is expected to continue beyond 2025, the final year of this medium-term business plan, to 2030 and beyond. In other words, we believe that this three-year medium-term business plan will result in a firm foundation for sustainable growth beyond its term.

It was not until the mid-2010s that we fully began to promote automation and turnkey systems, by combining process-integration machines, such as 5-axis machines and mill-turn centers, with robots and other peripheral equipment. At that time, a major shift began in our conventional business model, which focused on manufacturing and selling stand-alone machines which pursued high precision, high speed, high rigidity, and high durability. In the beginning, we focused on developing products that are important to maximize the effective use of complex machines such as 5-axis machines and mill-turn centers. Analyzing customers’ production processes, we first developed software products which assist scheduling such as DMG MORI Messenger and ISTOS for time efficient machine setups without redundancies. Next, for the machining stage, we developed Technology Cycles, application software that assists loading and unloading workpieces to and from the machine, facilitates machining of complex shapes, or performs measurement and monitoring. We also broadened our lineup of DMQP (DGM MORI Qualified Products), which are peripheral equipment compatible with our machine tools. In the post-production stage, in which we offer service, we have introduced *my* DMG MORI, a portal site that allows customers to view the installation history of DMG MORI machines, access manuals, and obtain order history of service and spare parts, and order spare parts online. In this way, we have expanded our product and service offerings to provide our customers with comprehensive support for optimizing their machining processes.

Subsequently, the introduction of solutions to the “three machining evils” of chips, coolant, and mist led to longer automatic operation times. The increasing complexity of workpieces and the growing demand for 5-axis machines and mill-turn centers capable of multiple operations in single chucking have led to the increased use of CAM software to generate machining programs. CELOS DYNAMIC $post$ is a software package that integrates three functions in one: toolpath conversion to NC programs, cutting simulation, and cutting force optimization. This enables customers to significantly shorten the time from programming to the start of machining. It also contributes to reduced energy consumption because trial machining on the actual machine can be eliminated to zero.

In addition to these measures, our unique management policy of expanding our trading and engineering functions has become very important. We have approximately 12,000 employees globally, of which approximately 7,200 (60%) are involved in marketing, sales, engineering, and service, and approximately 4,800 (40%) are involved in manufacturing. Our overwhelming strength is our in-house ability to propose value to our customers, realize it, and further improve it. We recognize that this enhanced internal management resources of development, manufacturing, sales, engineering, and service will further solidify our ability to achieve process integration, automation, digital transformation, and green transformation.

Recently, our competitors have also come up with strategies similar to ours, such as process integration and automation. However, DMG MORI has a rich lineup of process-integration machines such as 5-axis machines, mill-turn centers and AM, and has a large amount of accumulated know-how for machining complex-shaped workpieces. In addition, we have differentiated ourselves by our ability to support customers’ machining process with in-house developed software and offer DMQPs. Above all, our strength is that we can directly provide all machining processes to our customers, such as high value-added solution proposals and installation of automation and turnkey systems, through direct sales, direct service, and in-house engineering.



NTX 500 + MATRIS Light

This medium-term business plan was prepared by a group of executive officers, general managers, and group managers in their late 30s to early 40s who will lead DMG MORI into the next era. The group worked on the plan internally two to three times a month, and it took about one year to complete it. In addition to the fact that this medium-term business plan includes specific management indicators and action plans, a system has been established for each manager to thoroughly implement the PDCA cycle (Plan→Do→Check→Act). The medium-term business plan also provides for the training of the next generation of executives.

What are the key points in the Medium-term Business Plan?

As stated in our mission statement, “Play hard, study continuously, work together,” we believe that employee engagement is the most important factor in the sustainable growth of a company. On this basis, as we have already commented, on the business side, we will promote process integration, automation, digital transformation, and green transformation. In addition, social and environmental stability is an essential prerequisite for sustainable corporate growth, and we will further strengthen our efforts to reduce carbon footprints and effectively utilize water resources. Supply shortages and logistics disruption have emerged while we were facing a rapid recovery in demand for machine tools since the latter half of 2021. We recognize that strengthening supplier engagement and in-house production of key components are also important issues. Furthermore, we also place importance on risk management, such as responding to stricter export regulations of our products (P.101) and cyber security (P.103) due to growing geopolitical and other risks.

Employee Engagement

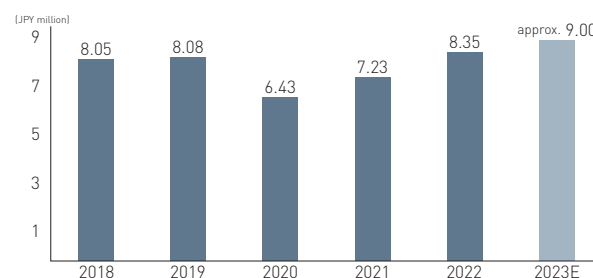
The most important management resource for sustainable corporate growth is our employees, and in January 2021 we announced the “DMG MORI Health Management Declaration”. We have been striving to improve the physical and mental wellness of our employees by enhancing medical checkups, providing Smart Meal (which is a nutritionally balanced meal that helps promote good health) at in-house restaurants, and supporting employees with mental health issues. We have introduced the following management indicators for each employee as effective indicators: 2,000 hours of total annual working hours per person, a maximum 10 hours per day in office, at least 12 hours interval between leaving the office on the previous day and arriving at the office on the next day, and 20 days of paid leave taken per year. In 2022, we were busy as our orders reached a record peak, but we were able to meet our target of 1,980 total annual working hours. On the other hand, the number of annual paid vacations taken was 18.8 days, slightly below the target. We will strive to achieve the target as soon as possible by promoting appropriate staffing and digital transformation.

As a global leader in the machine tool industry, our company is pursuing cutting-edge technologies, and in order to achieve sustainable growth, the recruitment and retention of highly skilled employees is an urgent issue. To solve this issue, we have revised employee salaries on a global basis. We revised the salaries for Japan-based employees in July, so that they are comparable to European and United States standards. In fiscal 2022, the average annual salary grew to JPY 8.35 million, a 15% increase from JPY 7.23 million in fiscal 2021, with the contribution for six months. In FY2023, the average annual salary is expected to be approximately JPY 9 million with a full year contribution, which is about 24% increase compared to FY2021. In addition, a substantial revision of the starting salary and starting annual salary for new graduates will be implemented from April 2023, but we decided to retroactively apply this revision to employees who joined the Company in

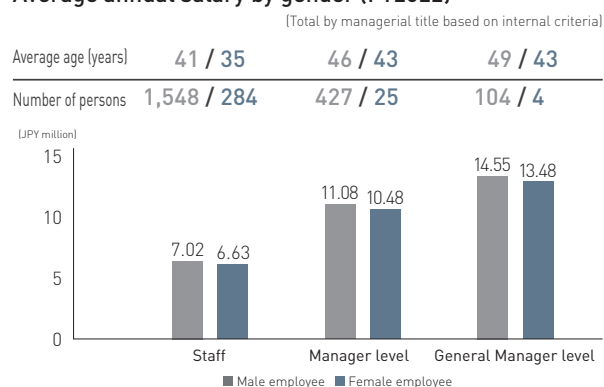
April 2022. The monthly salary for university graduates and technical college graduates has been increased from JPY 272,210 to JPY 300,00 after the revision, and that for doctoral graduates has been increased from JPY 334,150 to JPY 475,000. We believe that this provides our employees with a secure foundation for their livelihood.

We have also been striving to support women in the workplace and have strengthened our childbirth and childcare support systems. We have established permanent company-led DMG MORI Nursery Schools at the Iga and Nara Campus to accommodate a total of about 100 preschool children. The average annual salaries of male and female employees in Japan are almost the same for each managerial title, such as staff, manager, and general manager, and we have a salary system that is commensurate with duties and performance without distinction between men and women. However, it is an issue that the ratio of women in management positions remains low. We strive to increase the ratio of female employees at the recruitment stage, and work to raise the ratio of women in managerial positions through training and work experience.

Average annual salary*



Average annual salary by gender (FY2022)*



* Salary revisions for Japan-based employees were announced in August 2022 and reflected from July 2022; starting in January 2023, salary revisions will contribute to the full year.

In recent years, it has also become increasingly important to secure personnel with expertise in software development, artificial intelligence, and other areas in order to expand automation and digitalization. We will continue to strive to secure excellent IT personnel on a global basis. In August 2022, we held an opening ceremony for the Nara Product Development Center (“Nara PDC”), DMG MORI’s largest global R&D center, in Nara, where the Company was founded. The designers in this center will develop advanced digital technology, next-generation 5-axis machines and mill-turn centers, peripheral equipment and software products by utilizing the next generation telecommunication technology,

AI and digital twin technologies. It will also be used as a venue for industry-academia collaboration, exchange and training of engineers. Prior to this, in April, "WALC Inc." ("WALC") was established to take over the "Emerging Technologies Laboratory" launched in 2017. The Company will promote digital transformation in manufacturing using advanced technologies such as AI, IoT (Internet of Things) and cloud computing. We will continue to explore new and unknown fields of technology as well as deepen our existing technologies.

Review the Supply Chain

Supply chain disruptions triggered by semiconductor supply shortages became a major problem. In the machine tool industry, the prolonged lead times for CNC (computer numerical control), control panels and plastic parts became a critical issue. We were able to keep supply chain disruptions relatively minor due to our efforts to diversify our procurement sources, mainly in Japan and Europe, and to promote in-house production of key components such as spindles, ball screws, turrets, and castings.

Many machine tool suppliers are small and medium-sized enterprises, and they face many issues, including low wages, harsh working environment, and delays in carbon footprint reduction measures. To ensure sustainable growth, we believe it is essential to improve the treatment of these small- and medium-sized suppliers. In March 2022, DMG MORI announced its "Declaration of Partnership Building" to promote coexistence and co-prosperity throughout the supply chain that transcend size, affiliation, and other factors. In addition, using the platform provided by INTEGRITY NEXT GmbH in Germany, we monitor 16 sustainability issues, such as human rights, worker health and safety, elimination of harmful substances and measures environmental protection, and work with suppliers to identify problems and implement improvement activities. The number of targeted suppliers is about 800 globally. Sustainability of suppliers is labeled by following three categories: Sustainable (green), Less Critical (yellow), and Critical (red). We will continue to make improvements so that by 2025, the final year of the medium-term business plan, we will eliminate companies placed in the critical category.

With regard to our in-house production initiatives, we have been manufacturing key components such as spindles, ball screws, and turrets that help improve and maintain machine quality and shorten procurement lead times. However, the reduction of CO₂ emissions related to purchased parts has also emerged as a critical issue. Among purchased components, the reduction of CO₂ emissions from castings is a particularly significant issue. We have made DMG MORI CASTECH CO., LTD. (formerly Watanabe Steel Works) a group company, and by switching from a conventional coke oven to an electric furnace and using CO₂-free electricity as the power source, we are planning to reduce CO₂ emissions related to castings. By 2025, when the electric furnaces are in full operation, we target to reduce CO₂ emissions casting production at DMG MORI CASTECH by 98% compared to 2020. We schedule to implement similar measures in Poland and India in the future to ensure a stable supply of castings in the global market and to promote environmental protection in the production of castings.

Environmental Protection Measures, Reduction of CO₂ Emissions

Since the beginning of 2021, our DMG MORI machine tools produced around the world have been carbon neutral in the range from Scope 1 to Scope 3 upstream under the third-party certification by PricewaterhouseCoopers GmbH in Germany. Since January 2021, all of our machine tools manufactured worldwide have been marked with the "GREENMACHINE" mark, indicating that they are manufactured in a carbon-neutral way. In July of the same year, we also published a report in compliance with TCFD recommendations. In November of the same year, our targets for reducing our carbon footprint by 2030 were also certified by the Science Based Targets ("SBT") Initiative. Based on the targets with SBT certification, we target a 25.2% reduction in CO₂ emissions by 2025 and a 46.2% by 2030 in Scope 1 and Scope 2, compared to 2019 emissions. For Scope 3, we target a 7.4% reduction by 2025 and a 13.5% reduction by 2030.

In 2022, a biomass power generation system was put into operation at our main Iga Campus, and we are also actively promoting the purchase of CO₂-free electricity. These measures also contributed to a steady reduction in CO₂ emissions in 2022, which were about 7% ahead of the aforementioned targets with SBT certification. To further reduce CO₂ emissions in Scope 1 and Scope 2 areas, we are installing large-scale solar power generation systems at Iga and Nara Campus. Once operational in 2024, these solar power generation systems are expected to cover up to 50% of the electricity demand at each factory and approximately 30% of the average annual electricity demand. We will promote the reduction of CO₂ emissions by reducing the power consumed by machine tools themselves through the adoption of GREENMODE technology with functions such as minimizing machining time and power consumption monitoring.

In addition, we will accelerate reduction of CO₂ emissions by advancing introduction of process integration, automation, and digital transformation in our factories. For Scope 3 upstream (CO₂ mainly contained in procurement from suppliers), we are working to reduce CO₂ emissions by sharing our know-how with suppliers based on the data collected through the aforementioned supplier monitoring platform. For Scope 3 downstream (CO₂ emissions of customers which use DMG MORI products), we have been helping our customers reduce their electricity consumption by installing the GREENMODE technology as standard equipment since 2017. Our MX also enables our customers to optimize their machining processes, helping them protect the environment through improved productivity.

Carbon footprint

(Unit: tons)

Scope	2019	2020	2021	2022	2019 vs 2022		
	total amount	total amount	total amount	total amount	fluctuation	fluctuation [%]	
Scope 1	43,193	33,917	34,150	33,147	-10,046	-23%	
Scope 2	65,689	42,652	28,380	13,884	-51,805	-79%	
Scope 3	Upstream	675,200	409,987	683,950	774,944	99,744	15%
	Downstream	949,061	625,922	650,773	733,703	-215,358	-23%
total amount	1,733,143	1,112,478	1,397,252	1,555,678	-177,465	-10%	

*The results of the above calculations have received a limited certification by PricewaterhouseCoopers GmbH.

Continued investment in medium- to long- term growth, employee training and environmental protection measures: allocate JPY 100 billion each to capital expenditure and R&D over three years

In 2022, we have reorganized the Iga Campus to be the largest machine tool assembly and factory for key component production, and the Nara Campus to be the largest system solution factory. In Germany, we introduced a state-of-the-art automated and digital logistics center at our Pfronten factory, the largest production site for 5-axis machines, to significantly shorten lead times for parts supply and to improve productivity, while reducing logistics costs.

During the period of the medium-term business plan, we will expand the system solution factory at the Nara Campus to approximately triple the 2022 level in terms of value-added based sales. We will also expand to a system capable of providing system solutions at the Davis factory in the United States and at factories in Europe to meet the growing global demand for process integration, automation, digital transformation, and green transformation.

As for investments in environmental protection measures, as already mentioned, we will expand casting production using electric furnaces with CO₂-free electricity in Japan, Europe, and India, and increase in-house power generation capacity by installing solar panels at major factories of group companies.

In addition, to meet the demands for training not only our employees but also those of our customers, DMG MORI Academy will be expanded to various locations in Japan. We have already decided to set up academies in five cities: Hamamatsu, Kanazawa, Sendai, Okayama, and Fukuoka. 5-axis machines are becoming even more popular in Japan. We believe that this expansion is due in part to the fact that we have been actively promoting the training of operators through 5-Axis Machining Association since 2018. We will build on this momentum and promote sales of new technologies we have developed, as well as our low-code programming software TULIP (which is a cloud-based manufacturing support application creation platform developed by Tulip Interfaces, Inc., an independent company founded by MIT Media Lab in the United States) by having customers experience them at DMG MORI Academy.

Machine tools are products that can make a significant contribution to society by pursuing ultra-high precision, ultra-high speed, high rigidity, and high durability, and by consolidating machining processes to reduce various management resources and energy consumption. In addition to further pursuing this core technology, we will continue to develop more cutting-edge machining technologies with high efficiency.

Our “NZ-Platform” for flexible turning centers that can mount up to four turrets with an added B-axis function (turning function) extended the line of process-integration machines. “NTX 500” is the smallest mill-turn center in the series, capable of machining small, complex-shaped workpieces

with a single machine. It saves space and increases production per unit area. Suitable for machining parts with complex shapes used in fields such as medical, aerospace, optical equipment, and robots, “NTX 500” has led to the development of new customers. “NHX 10000 μ Precision” is a large horizontal machining center that combines high rigidity with ultra-high spatial accuracy of 15 μ m or less. Spatial accuracy is measured by the maximum amount of displacement of the cutting edge when a machining area of 1.7 m on the X-axis, 1.4 m on the Y-axis, and 1.51 m on the Z-axis is stroked. This means that for a space of 3.6m³ (equivalent to the space occupied by four units of refrigerators with about 500-liters capacity, a size common for a Japanese household of 3 to 4 people), the error is only one-third the width of a human hair. It is suitable for machining large workpieces for aircraft, vessels, energy, or construction machinery, where ultra-high precision is becoming more and more important. Combined with automation systems such as pallet pool systems, it also contributes to improved productivity and reduced power consumption and less CO₂ emissions. “LASERTEC 3000 *DED hybrid*” has been highly evaluated in the field of AM, which has finally begun to enter the diffusion stage. It is being applied not only to parts manufacturing, but also welding, coating, repair, and other fields, contributing to a significant reduction in processing time and significant savings in materials and other resources used.

It is important to provide measurement solutions to guarantee high-precision machining. “Tool Visualizer” performs non-contact, automatic measurement of cutting tools on machine tools. In addition to high-precision cutting tool compensation, it also detects deformations of cutting tools, which is an important element of automation. We have developed a non-contact on-machine measurement system that uses a laser scanner to measure the shape of the workpiece after machining, eliminating the need to change the workpiece to a dedicated measuring device outside the machine, thereby reducing the workload and measuring lead time by about 50%. As workpieces become more complex in shape and at the same time require higher accuracy, we believe it is essential to improve the technology for measuring spatial accuracy on the machine.

We will also aggressively increase capital spending in our group companies for the medium- to long-term growth. Demand for ultra-precision measuring components for next-generation semiconductor production equipment continues to bring business to Magnescale CO., LTD., which manufactures and sells such parts. In addition, since customers are demanding a stable supply, we will consider diversifying the risk of our production sites. These investments are planned to double the sales of group companies by 2030 compared to FY2022.

Financial targets in the Medium-term Business Plan

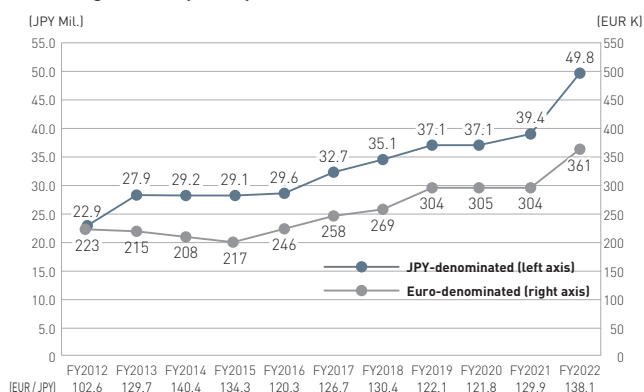
Building a Resilient Structure to Overcome Changes in Business Environment

We aim for stable earnings growth that is not greatly affected by fluctuating market demands. In the past, when market demands deteriorated, we pursued volume expansion, including strategic measures such as shorter delivery times and lower prices. As a result, sales and profitability fluctuated dramatically in response to market demands. However, when demand for machine tools declined due to the United States-China technology friction and COVID-19 pandemic, we made a break with our strategies including short delivery times and low-priced sales, and focused on further enhancing our ability to offer value to customers through process integration, automation, digital transformation, and green transformation. As a result, the discount rate has decreased, and profitability has stabilized by linking the abundant order backlog to sales. In addition, our sales structure, which is tailored to the needs of our customers in the global market, has enabled us to steadily pass on the price hikes in materials and others from the beginning of 2022 onward.

This policy will be further reinforced in the future. We plan to keep the annual order, production, and sales volume at around 8,000-9,000 units for the foreseeable future, while we focus on providing qualitative value to increase the satisfaction of individual customers. By providing high-quality, high-productivity automation and full turnkey systems, the unit price per order will rise to around JPY 50 million excluding the sales-driving impact of the depreciation of the Japanese yen. In addition to an abundant order backlog, spare parts and service departments, peripheral equipment and engineering departments, and group companies will contribute to stability in business performance.

Against this backdrop, we plan stable growth in sales and profits during the period of our medium-term business plan, which ends in 2025. In the final year of the plan, ending December 31, 2025, we target sales revenue of JPY 600 billion, operating profit of JPY 72 billion, operating profit margin of 12%, net profit of JPY 48 billion, and net profit margin of 8%.

Average order price per unit



Emphasis on Healthy Financial Structure and Capital Efficiency

The financial target at the end of 2025 is set at zero for the balance of interest-bearing debt, excluding perpetual subordinated loans and debt, from JPY 47.6 billion at the end of December 2022. The net interest-bearing debt balance, including perpetual subordinated bonds and loans, is set at JPY 80 billion. The balance of perpetual subordinated bonds and loans was JPY 118.8 billion as of December 2022. We will prioritize the repayment of borrowings through 2025, the final year of the medium-term business plan. The current weighted average interest payment ratio on perpetual subordinated bonds and loans holders is below 1.5%, which remains low relative to our cost of capital. However, the interest payment ratio of the perpetual subordinated bonds and loans will increase upon the arrival of each optional redemption date. The Company plans to redeem JPY 8.0 billion of the subordinated bonds that will come due in August 2023. Further portions of the subordinated bonds and debt will subsequently reach their optional redemption dates in the second half of 2025 and thereafter, and the Company intends to redeem them sequentially, using free cash flow as the source of funds.

We plan to raise the shareholders' equity ratio to over 50% from 36.1% at the end of December 2022, leading to much healthier financial structure. The machine tool industry has had low tolerance level of financial risk due to the high volatility of the business environment and business performance. However, we aim to significantly improve our tolerance level of financial risk by changing our business model, reducing our discount rate through high value-added proposals, and enhancing our performance stability and capital adequacy through our abundant order backlog. By promoting equity enrichment mainly through improved profitability, we expect to achieve a return on equity ("ROE"), which indicates capital efficiency, of at least 12% in the final year of the medium-term business plan, further improving from the 11% level in FY2022 and aiming for continuous improvement in equity value.

We will continue our efforts to return profits to shareholders by increasing dividends. We have traditionally maintained a dividend payout ratio (the ratio of returns to shareholders to net profit) of approximately 30% and will continue this policy in the future. As a result, we plan to increase dividends per share consistently to JPY 80 for the fiscal year ending December 31, 2023, JPY 90 for the fiscal year ending December 31, 2024, and JPY 100 for the fiscal year ending December 31, 2025.

In summary, DMG MORI will strive to satisfy all stakeholders by responding appropriately to societal issues and striving to sustainably enhance its corporate value.

Efforts to Address Medium- to Long-term Management Issues

DMG MORI aims to achieve sales of JPY 800 billion to JPY 1 trillion by 2030 by promoting Machining Transformation (MX) consisting of process integration, automation, digital transformation and green transformation. In order to achieve this goal, there are issues such as the shortage of engineers and the enhancement of the supply chain. On November 11th at the venue of JIMTOF2022 held at Tokyo Big Site, we had an opportunity to have a discussion with institutional shareholders and institutional investors arranged by securities analysts to clarify their concerns.

Miyagi: Thank you very much for providing us with the opportunity to have a meeting with President Mori and Executive Vice President Kobayashi today (November 11th, 2022) at the JIMTOF venue. The business environment has been changing drastically, and the capital market is very interested in how top management is attempting to respond to these changes.

Review of Third Quarter Financial Results (Ended September, 2022)

Miyazaki: Before moving to my questions, I would like to highlight some major figures from the financial results for the third quarter. In your announcement, you mentioned that consolidated orders peaked in the second quarter (April-June, 2022) and entered an adjustment phase in the third quarter (July-September, 2022), and lowered your FY2023 order forecast from its previous estimate of JPY 550 billion to JPY 500 billion.

However, you indicated that despite the worsening environment for order intake, DMG MORI expects sales and profits to continue growing in the coming year of 2023. The reasons you mentioned are as follows: the Company has an abundant order backlog due to its strategy of process integration, automation, and digital transformation; the contribution of sales revenues for spare parts and services, which are stable businesses with around JPY 100 billion; and profitability is improving due to higher order unit price and lower discount rates as a result of providing high added-value to customers. Dr. Mori has always commented on the importance of stabilizing business performance for the lean utilization of management resources, and I am hopeful that your strategy will finally be realized.

Considering the competitiveness and growth potential, I believe that corporate valuations for companies in the Japanese machine tools industry are at a very low level. Roughly speaking, corporate valuations tend to be determined by growth potential and future volatility factors (risk) such as business performance. I believe that low valuations to date have been largely due to the business volatility. I expect the market perception to change in the

future by maintaining a certain level of profits stability during slowdowns in demand.

Mori: Looking back to the previous cycle in demand for machine tools, order intakes peaked in the first half of 2018, and while order intakes declined through 2019, we were able to peak in operating profit in FY2019 thanks to an abundant order backlog. We had planned for a steady earnings growth from the mid-2020 with an expectation of order recovery. However, COVID-19 pandemic which started in the spring of 2020 caused another decline in order intakes. Nevertheless, we were still able to secure profits in FY2020, with sales revenue of approximately JPY 328 billion and operating profit of just over JPY 10 billion. In the past, we fell into the red during phases of rapidly declining order intakes. However, the fact that we were able to remain profitable even during a phase such as COVID-19 pandemic when orders were rapidly declining, reinforced our confidence that our current management strategy has been in the right way. We currently expect the order backlog at the end of December 2022 to be around JPY 260 billion, and our production / sales plans are already filled until about the third quarter of FY2023. So unless the environment changes significantly from this point on, we believe we will be able to secure the financial targets (sales JPY 500 billion, operating profit JPY 50 billion, operating profit margin 10%) we have already announced for FY2023. We expect that orders will begin to recover in the second half of 2023 or at latest the first half of 2024, and we aim to achieve sales of around JPY 600 billion in fiscal 2025, the final year of the next medium-term business plan.

Miyagi: What kind of profit structure do you envision around 2030?

Mori: As we have already indicated in our financial results presentation and in the Integrated Report, we expect sales to be around JPY 600 billion in the medium-term business plan through FY2025, and JPY 800 billion to JPY 1 trillion in sales by around FY2030. I believe that process integration, automation, and digital transformation will continue to advance in the future. Machine tool operators perform many tasks that do not add much value, such as transporting workpieces and attaching them to machines. Therefore, it is necessary to leave such tasks to robots and



Takeru Asano

Senior Analyst
Investment Research Group
ESG Investment Group
Tokio Marine Asset
Management Co., Ltd.

Hirokazu Miyagi

Senior Analyst
Equity Research
Dept.
Mizuho Securities
Co., Ltd.

Hirotake Kobayashi

Member of the Board
Executive Vice
President
Finance
DMG MORI CO., LTD

Masahiko Mori

CEO, DMG MORI Group
President, DMG MORI CO., LTD.,
Dr. Eng.
Chairman of the Supervisory
Board, DMG MORI AG

Hanshu Zhang

Portfolio Manager
Balyasny Asset
Management
(Hong Kong) LTD

Koji Miyazaki

Senior Analyst
Technology Team
Research Department
Sumitomo Mitsui Trust
Asset Management
Co., Ltd.

other peripheral products, and let operators concentrate on attractive tasks directly related to productivity improvement, such as programming, tool selection, and fixture creation. As the unit price of orders for machines will further increase due to process integration, automation, and digital transformation, we expect the average unit price to be around JPY 50 million, excluding the effect of any fluctuation in the currency exchange rate.

Based on the annual sales volume of 9,000-10,000 units, sales revenues of machine tools alone will amount to about JPY 500 billion. In addition, sales revenue of the spare parts and service departments, which is to amount to approximately JPY 100 billion in FY2022, will probably reach JPY 150 billion or more by the time the overall sales revenue reaches JPY 800 billion. With engineering-related sale revenue of about JPY 50 billion expected, combined sales revenue of the aftermarket spare parts and service departments will be about JPY 200 billion. In addition, group companies such as Magnescale, TAIYO KOKI, and TECHNIUM, which provide services using digital tools, are also planning capital investments to increase capacity to meet growing demand. In 2030, we expect the contribution from these group companies to be in the range of JPY 80-100 billion, up from the current JPY 35 billion. Thus, we are on track to achieve sales revenue of about JPY 800 billion around 2030 through organic growth alone. If DMG MORI aims to further increase sales to JPY 1 trillion, M&A may be an option.

About M&A

Miyagi: DMG MORI's current global market share is just over 10%. You mentioned M&A as an option earlier. What do you think will happen to the remaining 90% of the machine tool market in the future? How does DMG MORI plan to attack changes in this market? Please share your thoughts on M&A strategy.



Mori: Basically, M&A targets are subtractive machine tool manufacturers. Although DMG MORI covers AM, and we regard it as an important business segment for us, we focus on subtractive machining because we can provide value and

demonstrate strength in this area. Even if a giant IT platform provider or a general electronics manufacturer were to enter this field today, they would not be able to offer total value propositions to customers, including such functions as test cutting and proposals for optimal fixtures for machining, because they do not have the machining know-how. In addition, one of our major strengths is that we have contacts with 300,000 customers globally, including over 100,000 existing customers and remaining potential customers in the future.

Miyagi: Does that mean that you are intending to acquire other companies in the same industry?

Mori: We will be considering other companies in the same industry. Our main goal is to acquire the customer base that the target companies have, and to acquire development designers, mainly those who are skilled in software. Regarding the expansion of our customer base, since I took office as president, we have acquired overseas distributors, entered into a business transfer from Hitachi Seiki for the Japanese market, and merged with AG of Germany to expand our customer base, leading to an expansion in sales revenue. We currently have about 1,300 development designers worldwide at our major bases in Japan, Germany, and the United States. But we would like to have about 500 to 600 more to accelerate the development of new products and the speed for remodeling.



Miyazaki: In relation to hiring development designers and strengthening the engineering department, DMG MORI has grown by expanding its market into peripherals which are used in connection to machine tools. The strategy is for DMG MORI, which interacts more densely with the customers, to take on areas that are handled by so-called system integrators. What is the status of resource development for strengthening these areas?

Mori: Of around planned JPY 550 billion in consolidated order intake in 2022, order intake for machinery is expected to total around JPY 420-430 billion, of which about JPY 40 billion accounts for automation projects. In other words, we currently have the capacity to handle about 10% of these orders with automation, and we would like to increase this to JPY 100 billion. The definition of automation is quite difficult. Increasing a customer's productivity by incorporating simple

peripheral equipment and software is also a form of automation. However, what we mean by automation is to maximize our customers' management resources and increase their value-added productivity by optimizing robots and transfer equipment and focusing the work of operators on intellectual fields. To this end, we are in the process of completely remodeling our Nara Campus into a system solution factory over the next 3 years until 2025. Similarly, the Pfronten factory in Germany and the Davis factory in the United States are strengthening their capacity to handle automation projects. We have considerably enhanced the necessary resources, including the superiority of our process-integration machines in terms of precision, rigidity, and durability, our in-house software development capabilities, and optimization for factory automation. How to obtain more return out of these investments will be a key point in the future.

About Human Capital Management and Succession Planning

Asano: Perhaps, through such strategies to focus on highly value-added products, the average unit price has been steadily increasing. I believe that you have raised the salaries of new graduates and employees given such circumstances. In the past, labor costs were often viewed negatively as a cost to the Company, but recently the concept of human capital management has become well-known, and there are increasing demands to disclose the status of human capital utilization and data related to human resource.

Mori: My basic idea is that since we manufacture and sell the same products and provide the same value to our customers globally, the salary level should be almost the same across the world. We implemented a major salary revision in Japan in July 2022, but even so, considering the current exchange rate, I think the salary level in Japan is still low compared to those in the United States and Europe. An interesting case in point is that we have been gradually raising our per capita labor costs in China over the past several years, and they are now around JPY 5 million. In proportion to this, the EBIT margin of our Chinese subsidiary has improved over the past five years. The source of intellectually productive activities is human, so if our employees contribute to value-added work and improved productivity, I would like to give back to them and thereby increasing their motivation.

Asano: In relation to human capital, the topic of gender diversity is also often discussed. I think that if there are equal numbers of men and women, it is probably an economically rational way of thought, beyond the question of morality, to be able to recruit the same number of talented people from either group. DMG MORI has made a strong declaration in its corporate governance report that it is committed to play its roles to make the entire machinery industry less male-dominated, which I greatly appreciate. In

fact, when I look at the FY2021 Integrated Report, I see many women in leadership positions, and you provide female employees with the same job rotation opportunities as male employees, creating an environment in which they can grow in the same way. I think this is something that is not easy to do. In this context, I have the impression that DMG MORI is quite advanced as a manufacturing company. In this connection, if I may make one request, I think that the disclosure of time-series data related to female employees in the workplace is somewhat lacking, although you are making advanced efforts among Japanese companies.

Mori: I see. We have traditionally taken this matter as a matter of course, and in fact, a recent internal research has proven that there is almost no wage gap at DMG MORI between men and women as long as their job qualifications and positions are the same. I myself have been reflecting on this, but until now I had thought that if we communicated this to the outside world, we would be taken as pretentious. However, I feel that nowadays it is necessary to communicate certain information explicitly to get the message across both internally and externally. We are making internal preparations regarding the information you mentioned, and we would like to enhance our disclosure.

Asano: In terms of human capital, I believe that the president of the next generation is the key. Many outsiders consider that you have led DMG MORI with your outstanding leadership. What are your thoughts on your own succession plan at this point? I saw that many employees from the younger generation were featured in Integrated Report 2021, and that the next generation of executive-level managers are on the rise.

Mori: Since I became president of this company in 1999, I will have been in that role for 30 years in 2028, and I will be 68 years old. At that time, I intend to step down as president and pass the baton to my successor. If I can accompany him or her as chairman, I believe that the succession will be smooth. By that time, those currently serving as executive officers, who are around 40 years old, will be around 50 years old, the perfect age to lead an organization. We are also placing emphasis on developing human resources through practical experience by appointing younger generation of managers to executive officer positions and entrusting them with the management of group companies, as well as overseeing the R&D department, finance department, or overseas sales and service offices. In addition, we have introduced divisionalization since January 2022 and the assignment of top management responsibilities in each department are also helping foster the next generation of executive-level managers.

About matters of importance as president?



Miyagi: I believe that your efforts to improve the stability of DMG MORI's business performance by diversifying customers, industries and regions, and by holding a large order backlog, have been leading to good success. However, looking at the external environment, macroeconomic uncertainty is increasing due to factors such as heightened geopolitical risks. In this environment, what indicators are you focusing on as president from a medium- to long-term perspective?

Mori: As president of a global company, which is a fusion of Japanese and German companies, I am fortunate to have the opportunity to visit many parts of the world. Especially in my case, I often visit not big cities but regional cities where many of our customers are located. During the courses of my travels, I have obtained many hints for how to manage the Company by observing the lifestyle and salary level of people including our customers. Similarly, experiences such as the integration with AG of Germany and the construction of manufacturing factories inside and outside the country, allowed me to understand how people are living in other countries, and I refer to such knowledge when deciding management measures. It is interesting from a cultural anthropological point of view, and such a sense is important to understand our customers' needs, and consider succession plans or financing strategies of DMG MORI. In addition, by visiting the various regions, I can see where our competitors are located. I can see where German manufacturers and Italian manufacturers are present, and which leaders in the field of measuring instruments have their bases in the UK. The same is true in the United States and China. I now have a better understanding of how these companies are going to interact with us, or how we should interact with them.



Zhang: What are your principles in leading the merger of Japanese and German companies? Also, assuming that you will be expanding your business in China in the future, please explain your thoughts on how to develop business in China.

Mori: What I always keep in mind is to treat each other with respect. Europe, the United States, and China have very different cultural backgrounds and values, but I think it is important to respect the other party's point of view. And this is for the long term. Regarding China, both the current head of sales and the head of manufacturing and engineering have been with the Company for 20 years. I have known the head of the engineering department since he was studying in the United States. He joined our company when he was in the United States, and later returned to China at his request, where he continues to be an employee of our group. In India, we are training several engineers as well, and two engineers are currently in the United States for training. After gaining experience there, I assume that they will return to their home countries to play an active role. In short, our strength is that we are able to recruit and train people globally and retain people who will be active in our company for a long period of time. This has created a good cycle for both our employees and the Company. This is not limited to China and Asia, but extends all over the world, including Japan, Europe, and the United States.

Zhang: Asia (excluding China) is another market that is expected to grow in the future. Could you please share some of the issues that you feel your customers need to solve in the Asian market and the solutions that DMG MORI can provide to solve them in the next three to five years?

Mori: In Asia, the situation differs considerably from country to country, but we basically are developing our business focused on the high-end market in each country, partly to avoid price competition. In terms of our business, Malaysia and Singapore are home to many transformer factories of so-called Western companies, and our customers are also engaged in high-end manufacturing. These companies are the main purchasers of our cutting-edge simultaneous 5-axis machines. In Thailand, we have also recently seen an increase in the number of customers who are looking to do high value-added manufacturing by installing our process-

integration machines. Other countries, such as Indonesia and Vietnam, are still small as our target markets, but they have potential, so we are taking a close look at them. The Indian market is one that we see as promising in the long term. There are quite a few talented engineers in India, and there is a large influx of high-end machines made in Germany. Recently, major smartphone manufacturers have been moving some of their production to India, and investment is gaining momentum. We expect the market to grow rapidly around 2030, just as it did in China 20 years ago. We are currently receiving orders for about 20 units per month, but we believe that by 2030 the market will probably grow to about 100 units per month, the same level as in China today.

About Financial Strategy

Miyagi: Free cash flow is expected to be around JPY 30 billion in 2022, similar to that of 2021, and I think the Company's increasing ability to generate cash flow is commendable. On the other hand, DMG MORI also raises a lot of funds through measures such as perpetual subordinated bonds, and I am a little concerned about the medium-term repayment plan for such funds. In light of DMG MORI's key financial targets, please explain your thoughts on the future balance sheet structure.

Kobayashi: Currently, due to the weak JPY, the converted amount of assets and liabilities denominated in foreign currencies has increased by about JPY 55 billion. In addition, inventory levels are higher than usual due to advance procurements of parts in response to disruptions in the global supply chain. However, even if we remove the impact of these factors, total assets are still somewhat high. In terms of asset efficiency, I believe that the total asset turnover ratio should ideally be less than one. Since the current sales plan is JPY 500-600 billion, total assets should be reduced to around JPY 600 billion. As you have pointed out, since we have the ability to generate free cash flow, we will first proceed with the repayment of borrowings and aim to improve the efficiency of total assets through measures such as optimizing inventories strictly by managing it per machine unit, collecting accounts receivable early, and securing down-payments.

Miyagi: More specifically, do you have any medium-term financial targets in terms of balance sheet, such as equity structure?

Kobayashi: The key performance indicators for balance sheet are debt repayment, net debt-to-equity ratio, and shareholders' equity ratio. We plan to reduce debt, excluding perpetual subordinated debt, to zero within the next two to three years, using free cash flow as the source of funds. As a result, the net debt-to-equity ratio will also be zero. DMG MORI is aiming for an equity ratio of around 50%.

DMG MORI has been striving to stabilize sale revenues and profits performance with an abundant order backlog backed by development of process integration, automation and digital transformation. In the past, however, the Company has experienced large fluctuations in the demand environment for machine tools. Based on this experience, we are targeting a shareholders' equity ratio of approximately 50% as an equity structure that can withstand risks even in the event of a large drop in demand. We also believe it is important to leverage our shareholders' equity, if necessary, to quickly seize growth opportunities.



Miyagi: Are there any plans to reduce hybrid capital?

Kobayashi: The average interest rate on hybrid capital remains low, below 1.5%. However, after 2026, that level will gradually rise by about 1.0%. We intend to repay our hybrid capital before interest rate levels rise; we expect to be finished repaying our borrowings by 2025, after which time we should be able to repay our hybrid capital with free cash flow. In addition to stabilizing the top line, our goal for balance sheet in the longer term is to achieve a 50% shareholders' equity ratio, excluding hybrid capital, by reducing hybrid capital while enhancing capital by improving operating profit margin and net profit margin.

Supply Chain Initiatives



Asano: Finally, let me ask you about your supply chain initiatives. Recently, there have been production delays due to the global shortage of parts supply. In addition, I believe that challenges such as labor, wages, and CO₂ emissions

reduction efforts of small and medium-sized suppliers will emerge in the future. Under these circumstances, I see the initiatives at DMG MORI CASTECH (formerly Watanabe Steel Works), which is a group company of DMG MORI CO., LTD. (P.64), as a supply chain engagement. In terms of DMG MORI's supply chain as a whole, is it correct understanding that we will see a kind of "corporate village" being formed in the future in a manner similar to DMG MORI CASTECH model, and by doing so, the parties will be able to achieve sustainable growth as required, including quality improvement, standard wage structure similar to DMG MORI, and environmental responsiveness such as reduction of CO₂ emissions, and the added value of the Company will also increase.

Mori: Looking 10 years into the future, I feel that many suppliers are not sustainable in terms of wage structure, working environment, and environmental responsiveness, not to mention succession issues. This is a worldwide problem, not just in Japan. For castings, which are an important component, we have taken in DMG MORI CASTECH in Shimane Prefecture as a subsidiary, raised wages, and improved the working environment by constructing a new factory. In addition, DMG MORI CASTECH is switching from a conventional coke oven to an electric furnace and thereby reducing their CO₂ emissions by large. The expanded DMG MORI CASTECH's capacity will account for approximately 70% (currently more than 40%) of DMG MORI's casting procurement volume, contributing to stable procurement. When we look at AG of Germany, in addition to reviewing procurement routes for castings in Germany, we are intending to establish a casting foundry in Poland. We are also planning to expand our business partners for power boards from Eastern Europe, an area which we have been heavily reliant on, to Bosnia. We have some idea of which suppliers will and will not remain in the future from a global perspective, so we are taking preemptive measures to strengthen our supply network.

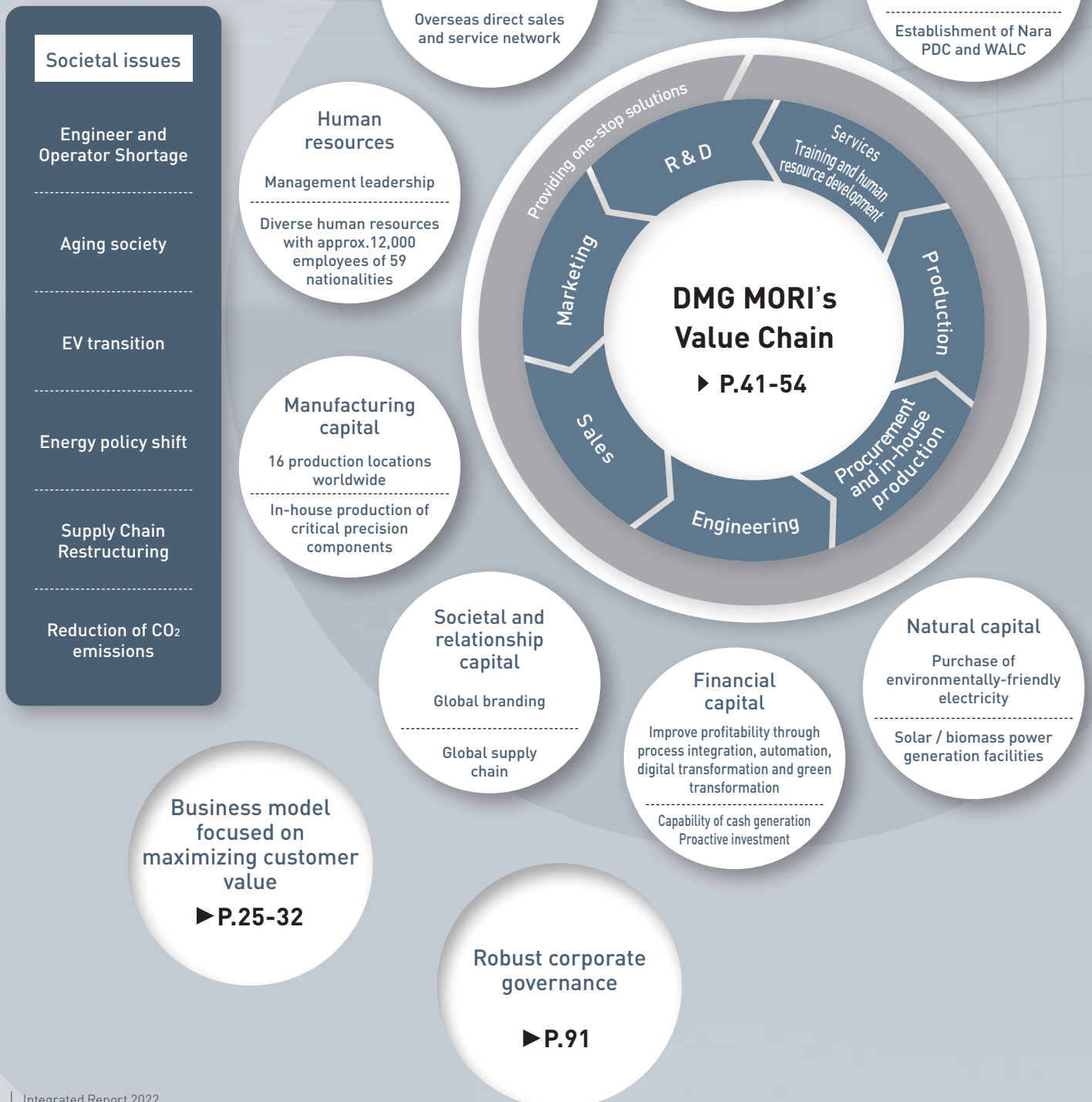
All: Thank you very much for your time today. Through today's meeting, we were able to gain a good understanding of DMG MORI's medium- to long-term management perspective.

Sustainable Growth by Solving Societal Issues

INPUT

Capitals which support our business

DMG MORI adapts to societal needs through its value chain and achieves sustainable value creation with respect to invested capital.



OUTPUT

Added-value we provide to customers

OUTCOME

Social Value

Process integration

Improving Customer Productivity
Optimizing Management Resources



DMU 65 monoBLOCK + PH Cell

NTX 500

Automation

Addressing operator shortage
Solutions for the 3 evils of machining



zeroFOG

AI Chip Removal

Zero Sludge Coolant Tank

NTX 500 + MATRIS Light

Digital Transformation (DX)

Digitalization of machining processes and services



my DMG MORI

Technology Cycles

Training

Foster skilled labor with advanced technology
Support for customers' operators



Green Transformation (GX)

Offering carbon neutral products (Scope 1, 2 and 3 upstream)



LASERTEC 3000 DED hybrid

DMU 50 3rd Generation

Market share
over 10%
(Global No. 1)

Expanding to new markets

New Energy Sector
Space Industry
Medical
EV

Customers worldwide

Over **100,000** existing locations

300,000 locations including potential locations

Cumulative approx. **300,000** units delivered

Financial Indicators

Cash flow generation
Profit margin improvement
Dividend increase

Human Resource

Global salary revision
Increase in ratio of female managers

Reduction of CO₂ emissions

2030

Carbon footprint reduction target certified by SBT

Scope 1,2 ▲46.2%

Scope 3 ▲13.5%

(based on year 2019)

Corporate group which continues to create value

| DMG MORI's Strengths |

Integration of trading / engineering and manufacturing functions

Provide machining technology through customer-oriented sales and services network

With 113 offices around the world, DMG MORI has established a customer-oriented sales and service structure unparalleled in the industry, and contributes solving customer issues through value-added proposals.

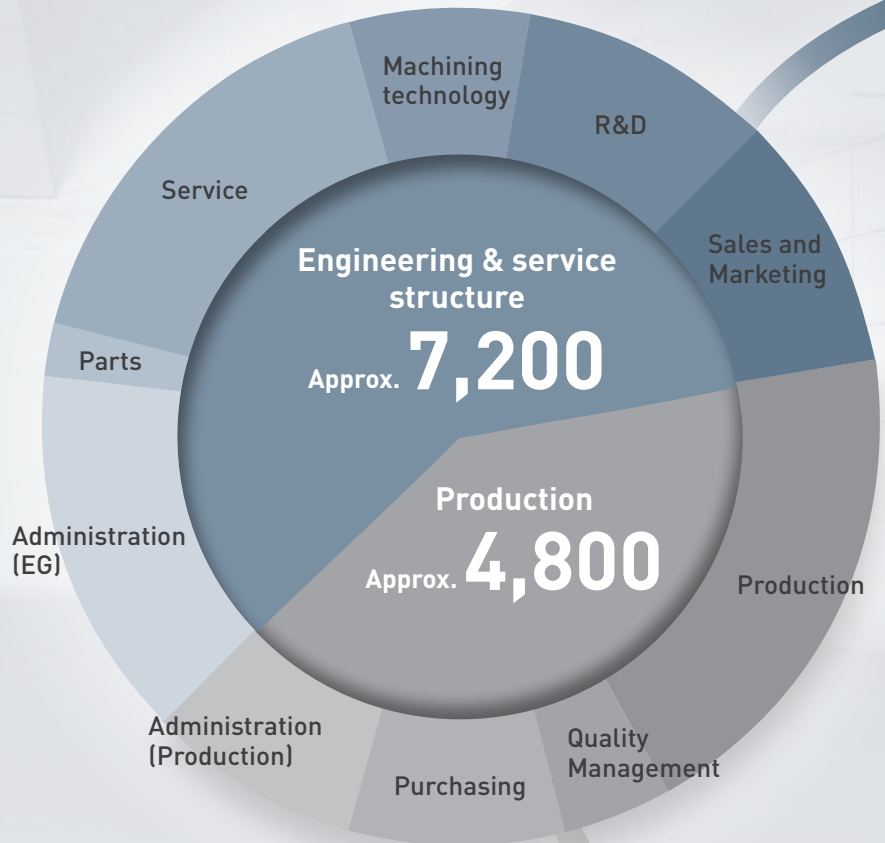
Technological innovation of machine tools precisely capturing societal needs

With introduction of cutting-edge technology, we are responding to major societal changes such as the pursuit of quality of life, the shift to EVs (electric vehicles), and the introduction of AI (artificial intelligence).

Building platforms by software and IoT

Build an integrated production structure that not only delivers machines, but also peripheral equipment and software to customers worldwide.

Headcount by occupation



Marketing, sales, engineering, and service department

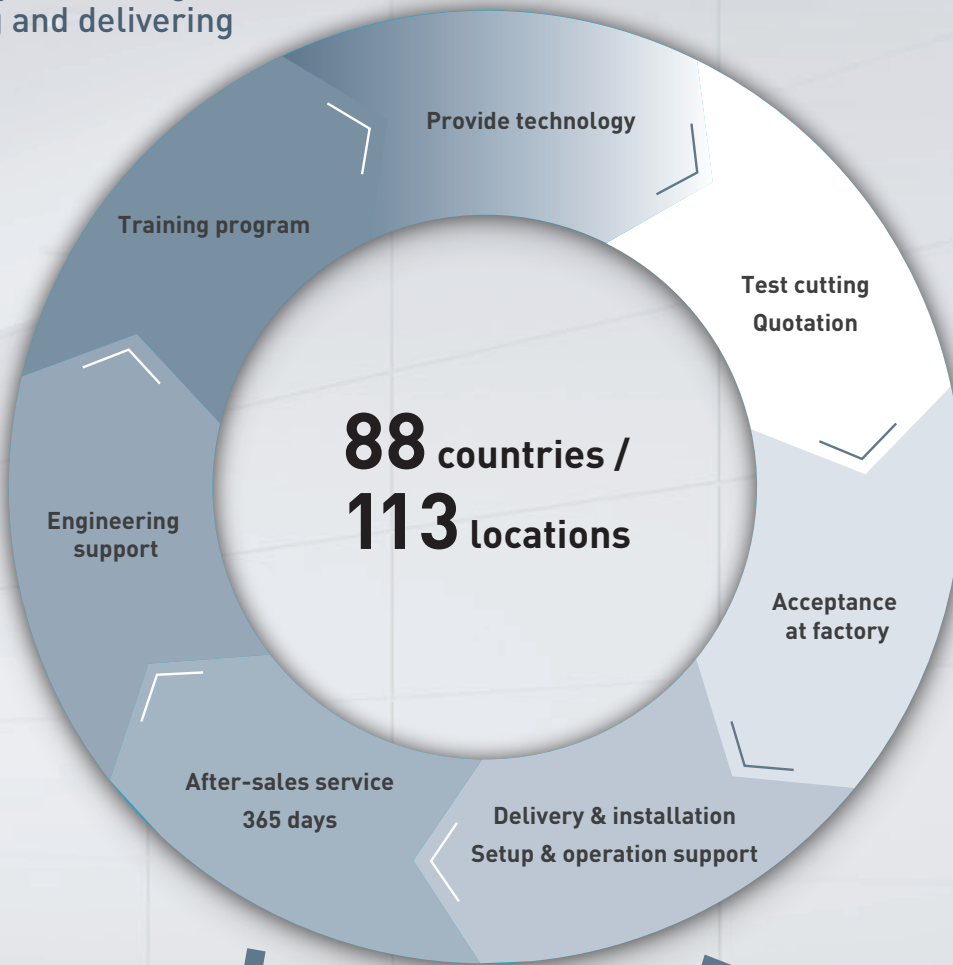
Sales and Marketing	Approx. 1,100	Service	Approx. 1,900	} Approx. 7,200
R&D	Approx. 1,300	Parts	Approx. 300	
Machining technology	Approx. 1,000	Administration (EG)	Approx. 1,600	

Headcount in production

Production	Approx. 2,800	} Approx. 4,800
Quality Management	Approx. 400	
Purchasing	Approx. 800	
Administration (Production)	Approx. 800	

Total Approx.
12,000
employees

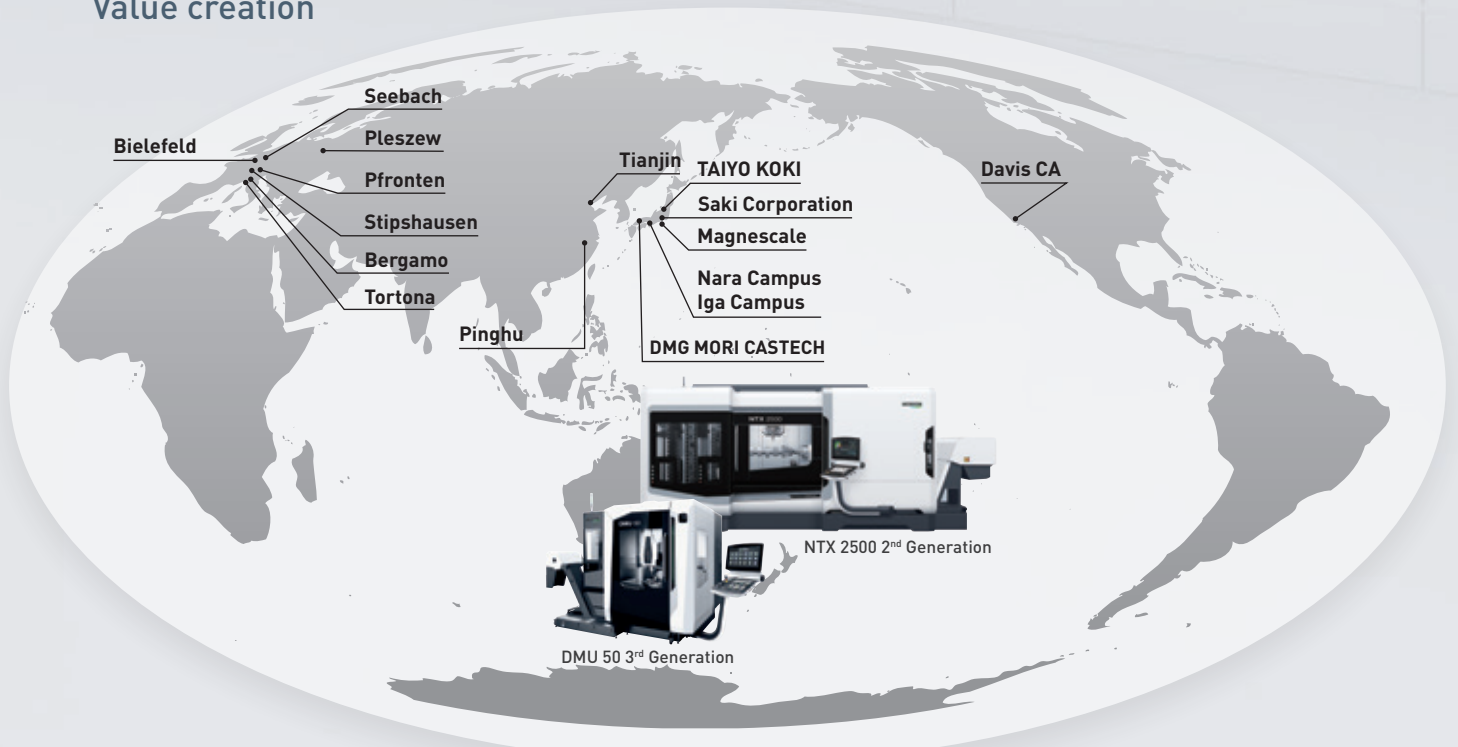
Capability of creating, providing and delivering values



Feedback

Sharing

Capability of Value creation

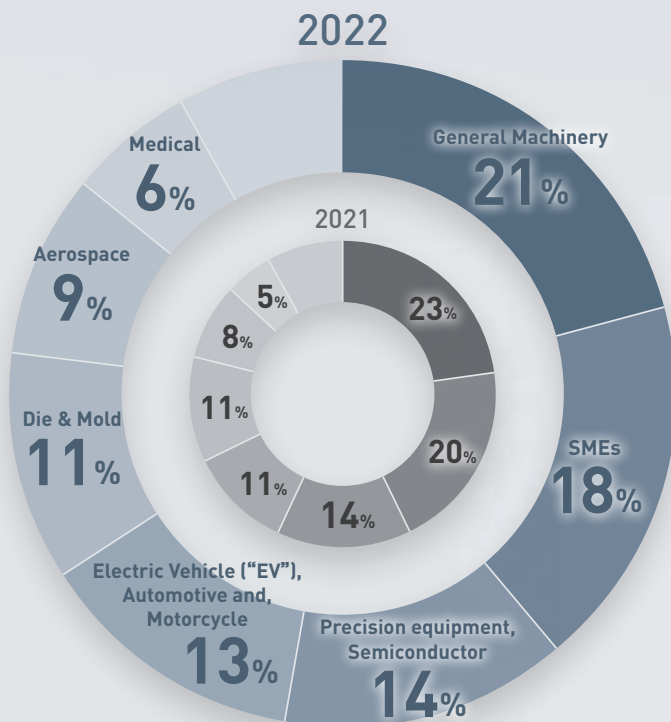
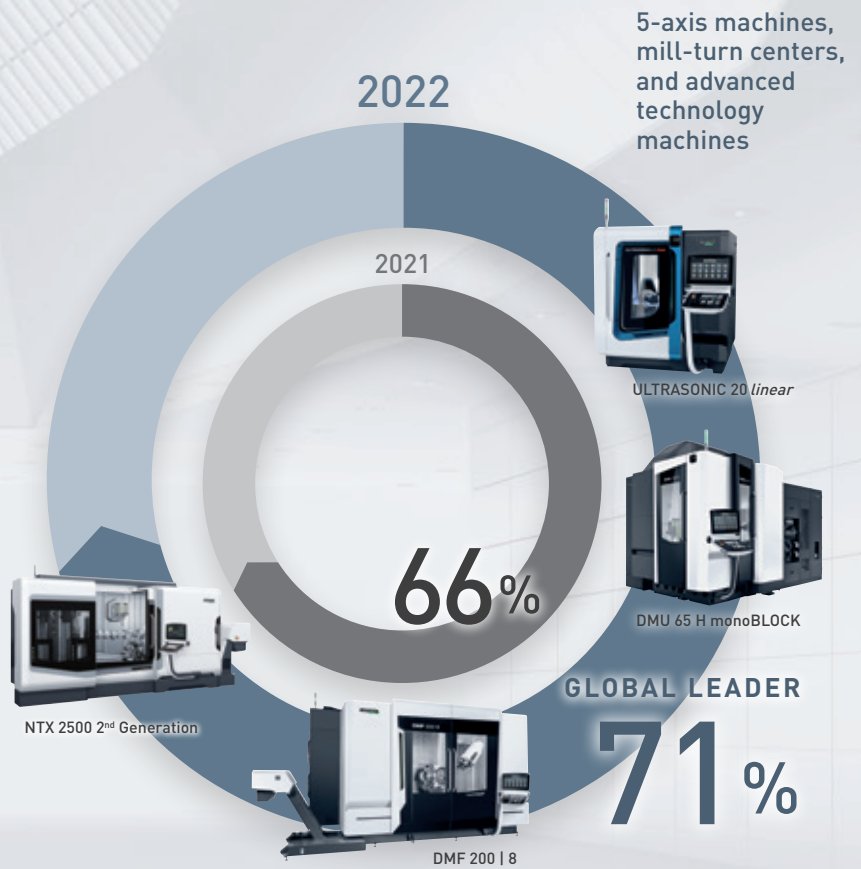


Production sites

Diversification Strategy

Order composition ratio for process-integration and advanced technology machines

Against the backdrop of societal changes such as a shortage of engineers and operators and the rise of high-mix low-volume production, DMG MORI has appropriately responded to customer needs for process-integration machines, which have increased since around the 2010s, and as a result, process-integration machines, represented by 5-axis machines and mill-turn centers, have been driving order intakes. DMG MORI will continue contributing to the automation and digital transformation in the manufacturing industry along by spreading process-integration machines.



Balanced industrial base

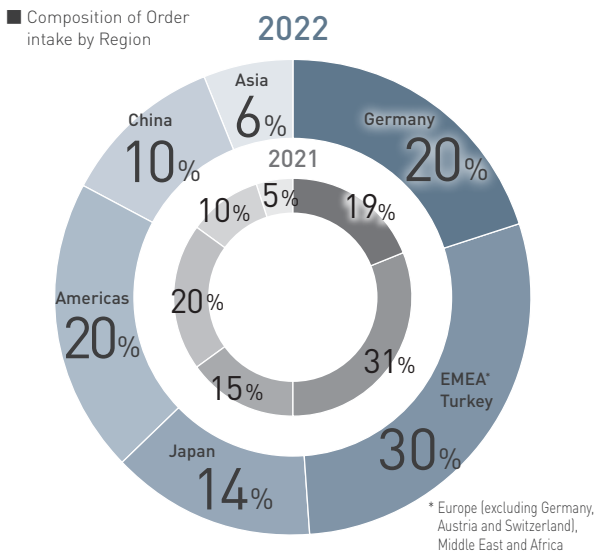
DMG MORI's products and services have been supporting customers in a diverse range of industries, from traditional manufacturing industries such as agricultural machinery, construction machinery and energy industry, to cutting-edge growth industries such as medical, electric vehicle ("EV"), aerospace, and semiconductor industries. DMG MORI contributes to the development of industrial society by offering our machining know-how to customers in a wide range of industries and by working together with them to improve their machining technologies.

DIVERSITY by region

Composition of customers by country / region

The machine tool industry is inevitably affected by demand fluctuations caused by unpredictable macroeconomic changes and capital investment trends. However, DMG MORI is attempting to stabilize its business by diversifying its customer base to many countries around the globe.

- ▶ DMG MORI intends to obtain sustainable growth by expanding its customer base from markets in developed countries to emerging markets.

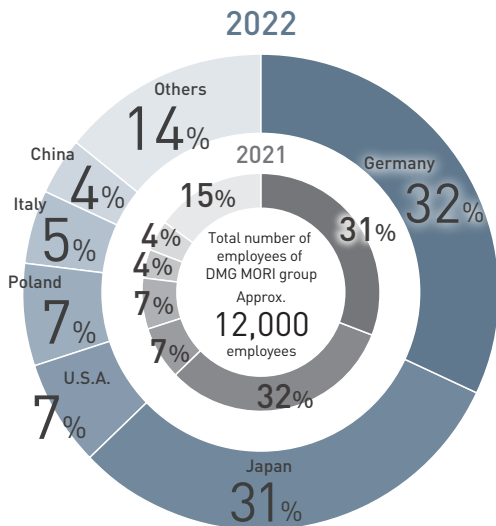


HUMAN RESOURCES

Multinational workforce

DMG MORI's workforce consists of approximately 12,000 employees of 59 nationalities, who are diverse in language, gender and field of expertise. At DMG MORI group, employees with different backgrounds cooperate and work with respect for each other.

- ▶ DMG MORI's diverse employees are the driving force to capture customers' needs and make technological innovations.

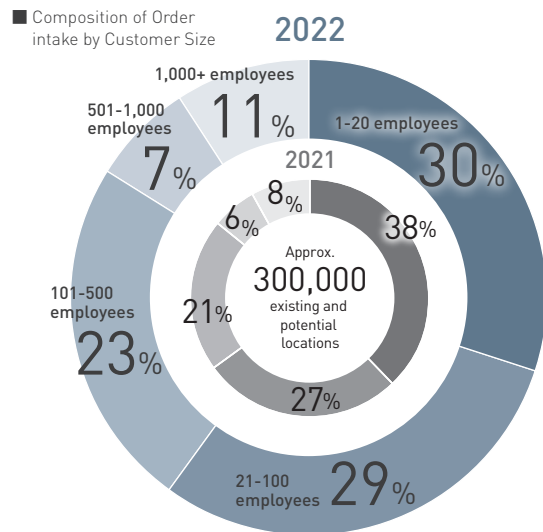


DIVERSITY in business size

Composition of Customers by size (based on number of employees)

Approximately 60% of over 100,000 DMG MORI users are relatively companies with no more than 100 employees. DMG MORI intends to stabilize its sales revenue and profits by establishing a system that covers both small companies and big enterprises, thereby addressing diverse needs.

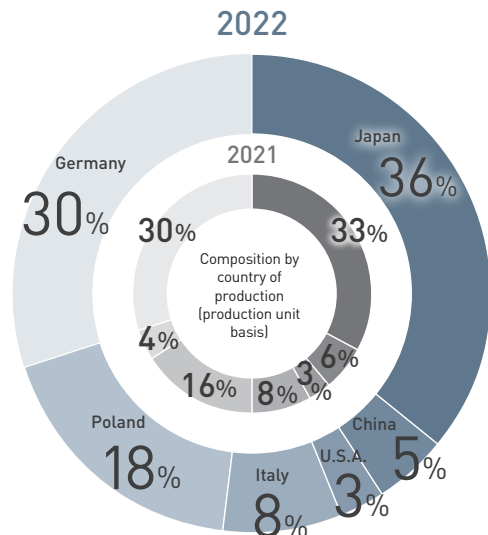
- ▶ DMG MORI's relationships with a wide variety of customers have resulted in the accumulation of our machining know-how. This accumulated expertise creates a virtuous cycle that leads DMG MORI to help even more customers solve their problems.



DIVERSITY of production sites

Diversification of production sites

DMG MORI has production sites in Japan, Germany, other European countries, the United States, China, and other countries. The diversification of production sites enables optimized delivery time to customers, reduces transportation costs. In addition, the dispersion of production bases ensures business continuity in view of geopolitical risks.



The World's Most Comprehensive and Optimized Lineup of Japanese and German Technologies

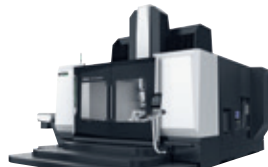
5-axis machines



DMG MORI's 5-axis machines boast outstanding milling capability and excellent operability, a cristalization of Pfronten factory's 120 years of experience in development and manufacturing. 5-axis machines, which can index multiple surfaces, enables machining to be completed in a single clamping, reducing the number of setups and simplifying or eliminating fixtures, thereby significantly shortening the process time. This enables high-precision machining that could not be achieved with 3-axis or 4-axis machines.



DMC 125 FD duoBLOCK



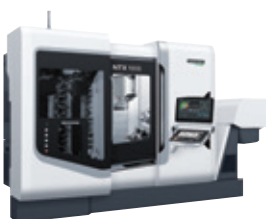
DMU 340 Gantry



Mill-turn centers



As the name implies, a mill-turn center is a machine that can perform machining operations that were previously performed on separate machine tools with a single machine, without the need for manual intervention by the operator. The high machining capacity achieved by the integration of a turning center and a machining center significantly reduces the production lead time, and the efficient integration of processes, whether the machine is used for high-mix low-volume parts to or mass-production parts, brings great benefits to DMG MORI's customers.



NTX 1000 2nd Generation



Advanced Technologies

Additive Manufacturing (AM) / ULTRASONIC (ULTRASONIC processing machine)



Additive manufacturing is a machining method that creates various shapes by layering metal materials. (P.45)
 ULTRASONIC machines can efficiently machine advanced materials, which are generally considered difficult to machine, into complex shapes. By superimposing ultrasonic vibration in the Z-axis direction in addition to tool rotation, resistance during the machining process can be suppressed compared to conventional machining. Laser machines enable low-cost, high-efficiency machining of all metals and new materials, including molding, micromachining, precision toolmaking, and power drilling.



LASERTEC 3000 DED hybrid

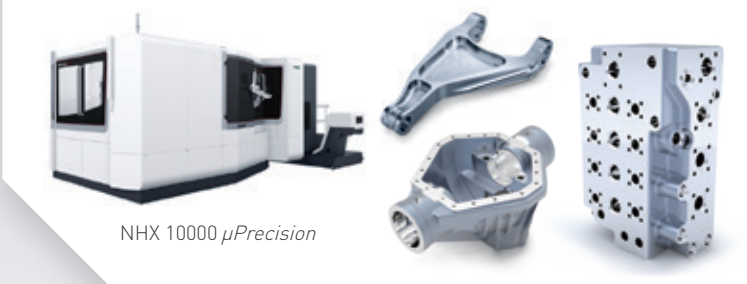
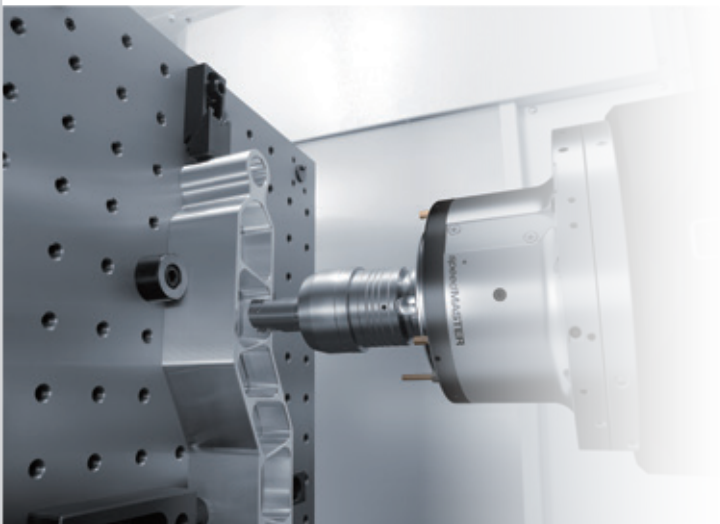


ULTRASONIC 20 linear

Horizontal machining centers



A horizontal machining center is a type of machining center that has a spindle mounted horizontally (sideways to the ground), and in addition to the XYZ axis, there is an axis for the rotating table. This structure eliminates the need to manually adjust the surface of the workpiece to be machined, prevents chips from accumulating on the workpiece during machining and makes the machine optimal for automation.



NHX 10000 μPrecision

Turning centers



A turning center holds a workpiece on its spindle and performs shaving, boring, and drilling of the outer diameter or end face by applying a blade on the rotating workpiece. Since its founding, DMG MORI has refined its turning technology as an innovation leader in cutting technology.



ALX 1500

Vertical machining centers



Machining centers are machine tools designed to perform a wide variety of machining operations, by using different rotary cutting tools for face milling, drilling, boring, or tapping, which are replaced by an automatic tool changer. A vertical machining center is one in which the spindle (rotating axis of the cutting tool) is mounted vertically (facing vertically to the ground).



CMX 800 V

Production Sites around the Globe

Expansion to Technology Days (small-group tours)

DMG MORI has production sites worldwide, with the biggest ones in Iga (Japan) and Pfronten (Germany). Our global presence allows us to produce machine tools closer to the end users, optimize transportation, secure short delivery time, and meet the diverse local needs. We also respond to geopolitical risks and ensure business continuity.



Germany



Pfronten factory
 Biggest production site in the world for simultaneous 5-axis machines
 Assembly of DMU / DMC and other series



Bielefeld factory



Seebach factory



Stipshausen factory

Europe



Pleszew factory (Poland)



Bergamo factory (Italy)



Tortona factory (Italy)

India



Lakshmi (Production consignment)



Japan

Iga Campus

Biggest production site in the world for turning centers, machining centers and mill-turn machines

Opening of the 2nd assembly factory further enhanced the production capacity of Iga Campus (Operation started in September 2021)



Nara Campus

Biggest system solution factory in the world in the machine tool industry

Ongoing renovation of Nara Campus (Operation is scheduled to start gradually in 2023)



USA



Davis CA factory

China



Tianjin factory



Pinghu factory
(Operation is scheduled to start in the second half of 2023)

Group Companies (Japan)



TAIYO KOKI



Magnescale



Saki Corporation



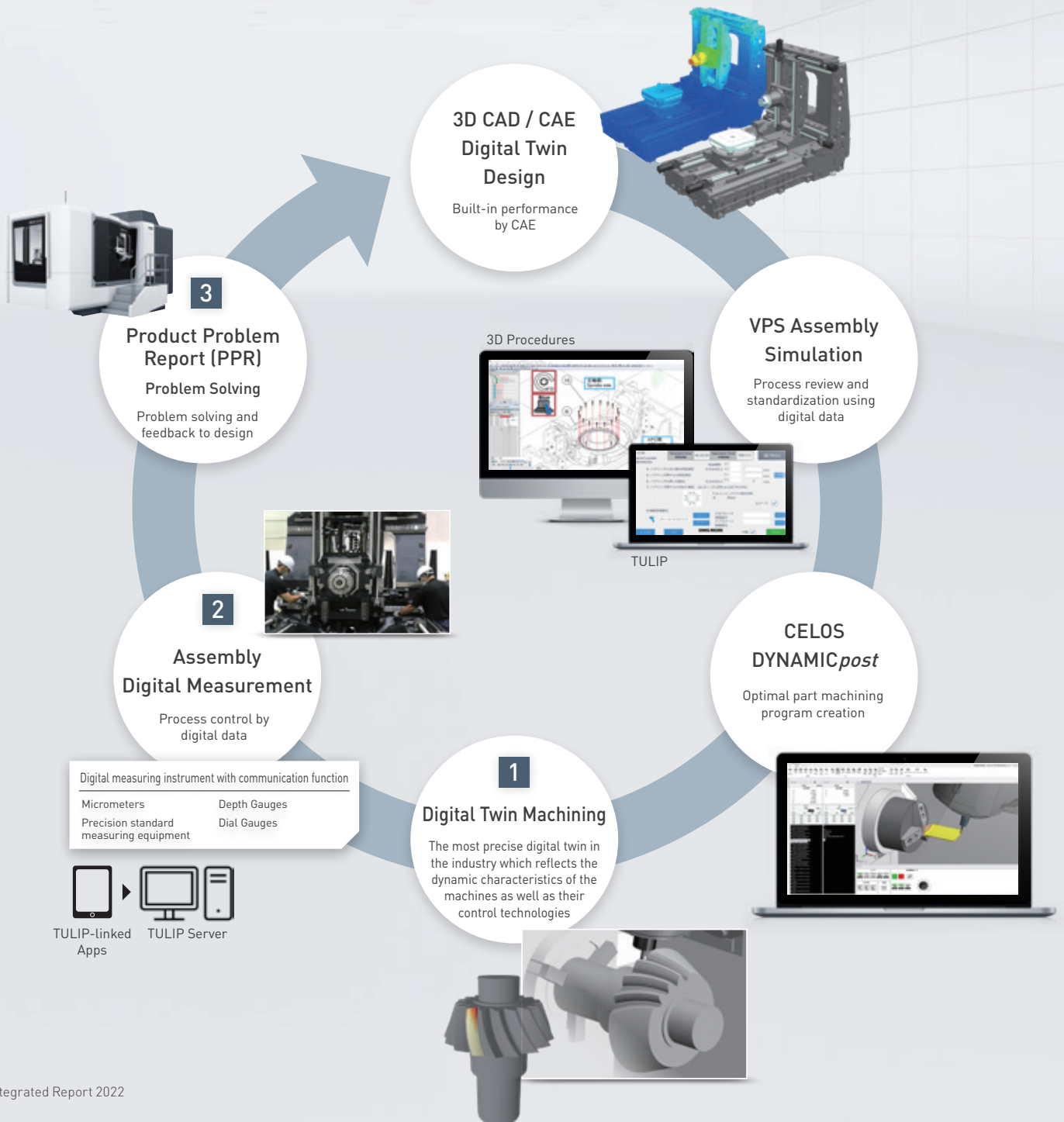
DMG MORI CASTECH

Digital Transformation to Realize Machining Transformation

Digital Transformation in Design, Manufacturing and Quality

With a history of about 50 years of numerical control since the advent of numerical control units ("CNC") around 1970, and the subsequent digitalization of machine design itself, "machine tools" is an industry with characteristics that are easily adapted to the rapid progress of digitalization in recent years.

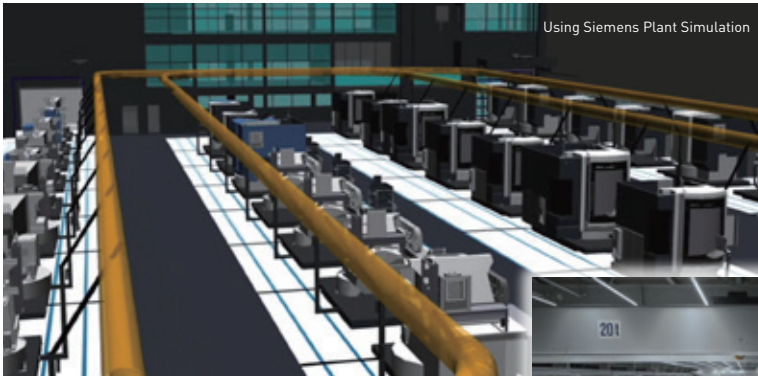
DMG MORI is implementing digital transformation in its design, manufacturing, and quality processes to speed up product development, increase productivity in manufacturing, and improve quality control.



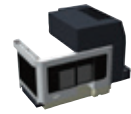
Factory Digital Twin

Reproduce the operating status of machines, robots and equipment in factory

Simulation of assembly at our Pfronten factory



▶ Digitally optimized process



machine

Digital twin test cut
Cycle time

transportation

Loading /
unloading time

Autonomous Mobile Robot (AMR), Robot

Route, speed

1 Digital Twin Test Cuts

Input information

- CAM data
- NC program
- Workpiece information & 3D model
- Tool information & 3D model



Digital twin test cuts

Digital Twin



Output result

- Cycle time
- Machining load and chatter vibration
- Surface roughness
- Optimization of feed and rotational speed (program)

Reduced analysis time by using RIKEN Fugaku

effect

- (1) Conventional test machining: 8 hours → 10 minutes (98% reduction)
- (2) Reduces environmental impact by eliminating the use of tools, materials, workpieces, and coolant

This research was conducted with the computational resources of the supercomputer "Fugaku," which was provided for the Company's use through the R3 "Fugaku" Industrial Trial Project (Proposal No. hp210202).



2 Digitization of measurement tasks

Expand utilization of digital measuring instruments (assembly)

Automation of measurement tasks in accuracy inspections, linkage with TULIP

- Improved measurement accuracy by introducing digital measuring instruments and special jigs
- Automatic input of measurement results by linking with TULIP



30 accuracy test measurement items
↓
25 items can be measured automatically

3 Digital transformation in quality

Product Problem Reporting System

Detailed Report to the Factory for Investigation of the Real Cause and Take Corrective Measures / Parallel Development for Product Improvement



Create a database of product defects and Share defect data quickly within the Company

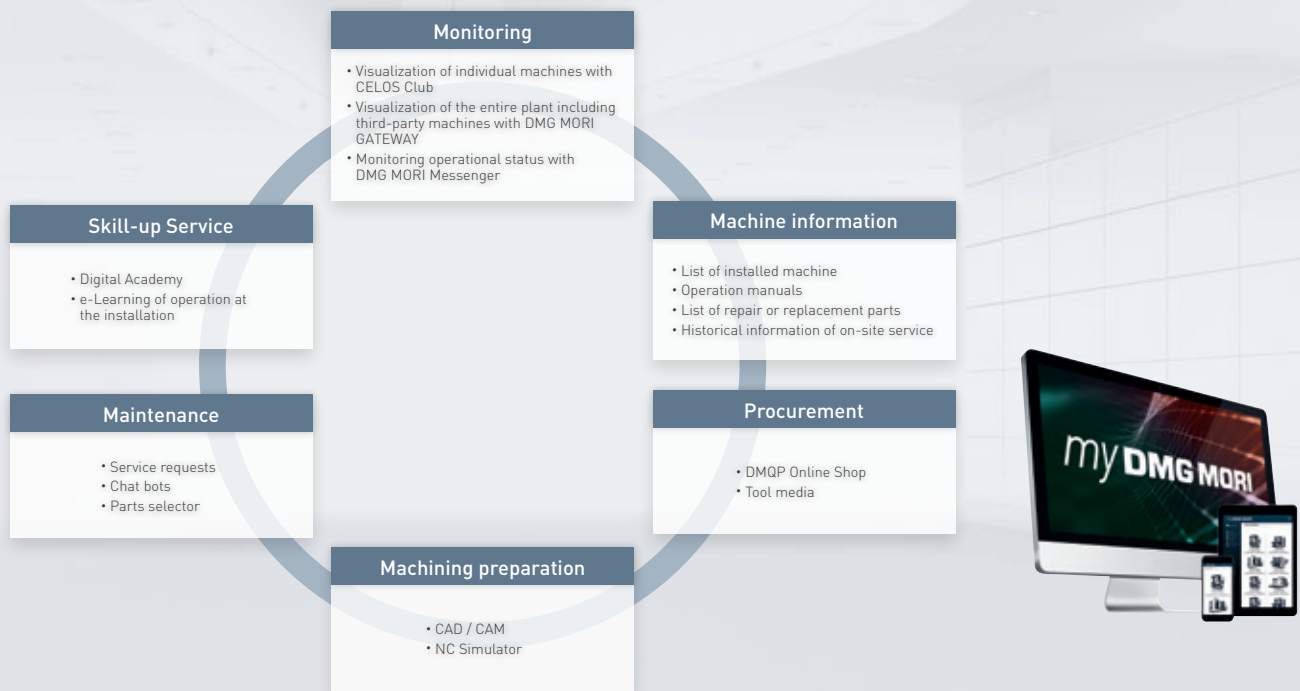
- 1995 Started with paper-based system
- 2000 Digitized with workflow system
- 2016 Introduced PPR to AG factories as well

Digital Transformation in Marketing, Sales and Service

DMG MORI is promoting digital transformation in all of its processes which involves customer contact, either before or after the installation of machine tools.

While face-to-face contact with customers remains important in the sales process for machine tools, which are production goods, DMG MORI is working to improve customer satisfaction by combining digital tools and face-to-face contacts as appropriate.

myDMG MORI: the comprehensive service interface with customers



Digital transformation tools implemented by DMG MORI at each process of customer contact



1 Digital Twin Showroom

Full CG (4k quality) copy of Iga Global Solution Center, System Solution Center and Pfronten Factory

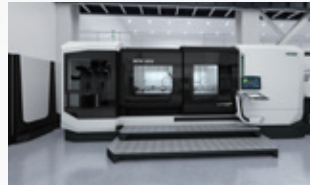
- Language: 4 languages (Japanese, English, German, Chinese)
- Exhibited models: 51 models (+11 models)
- DMQP products: 30 products (+10 products)
- Number of contents: 2406 contents



LASERTEC 3000, 6600 DED hybrid



NTX 500



NTX 3000 | 3000 2nd Generation



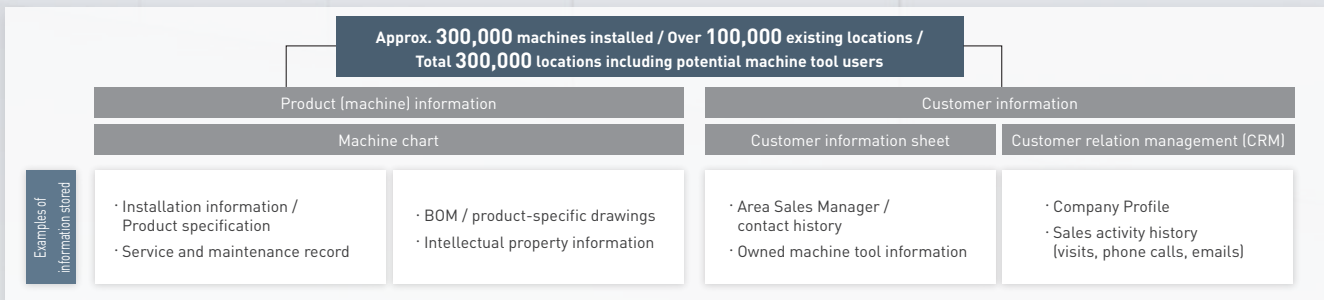
Vertical Mate 85, IGV-3NT (TAIYO KOKI)

2 Sales Manual 2.0

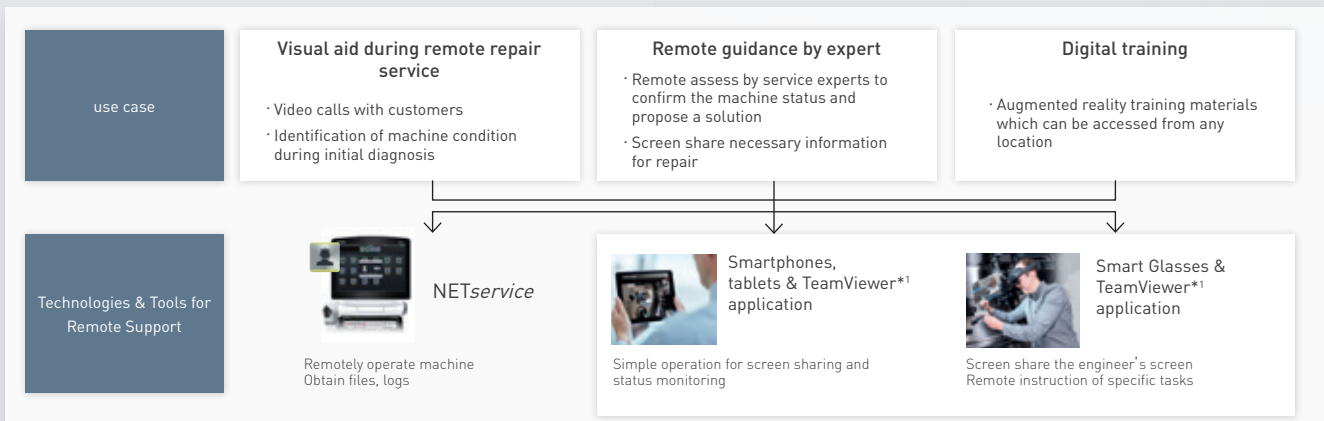
In addition to its capability to present the latest catalogs and 3D promotional videos of DMG MORI products on demand, this software allows area sales managers to show their customers a comparison of different machine specifications, and to access records of previous business meetings with a certain customer. Area sales managers around the world are provided with mobile devices with this sales manual being installed. By utilizing the function during business meetings, area sales managers can facilitate communication with customers and engage in sales activities with ease.



3 Database of customer information



4 Digital Transformation in Service: Remote Repair Service



*1 TeamViewer is a registered trademark or trademark of TeamViewer GmbH.

Digital Transformation in Training and Internal Communication

For efficient acquisition of knowledge and skills, DMG MORI is actively promoting the use of digital tools for training programs designed for customer's operators and DMG MORI's engineers.


In addition, DMG MORI has set up a common global internal portal site to facilitate internal communication and sharing of information so that employees around the world can easily access the information they need when they need it.

Tools to support the digital transformation of customers

Operator training with digital tools: DMG MORI Digital Academy

Digitized classroom lectures

- Learn regardless of place and time
- Minimize the impact on work by shortening the length of lectures
- Built-in management of learning progress and comprehension tests



Before (5 days): Classroom lecture + Machining exercise using actual machine

After (2 days): Machining exercise using actual machine + e-Learning

← Condensed program

Course contents (example)


Machining Basics for Machining Centers	Programming	Operation of Machining Centers
Chapter 1 Introduction	Chapter 4 Programming: overview	Chapter 7 Learn Machine operation
Chapter 2 Structure and Operation of Machining Centers	Chapter 5 Programming: execution	
Chapter 3 Machining Processes and Process Planning	Chapter 6 Programming: practice	

Process Design Advisor Videos 100

Process Design Advisor
PPA: Process Planning Adviser

Movie collection for customers considering the introduction of 5-axis machine (supervised by Iriso Precision Co., Ltd.)

- Training for operators after introduction of 5-axis machine
- Introduction of various fixing methods and machining processes using 5-axis indexing
- 100 CG representation of machining



Low-code platform TULIP for production sites

Improved production efficiency and quality in the entire shop floors

- Shop-floor members create an app and operate it immediately
- Collect and accumulate practical data and equipment data at the shop-floor in real time

Customer Case Studies

operation order



- Difficult to understand due to many product types
- Re-printing at each renewal

operation order



- 25% improvement in Productivity
- 90% reduction in Training time

operation order

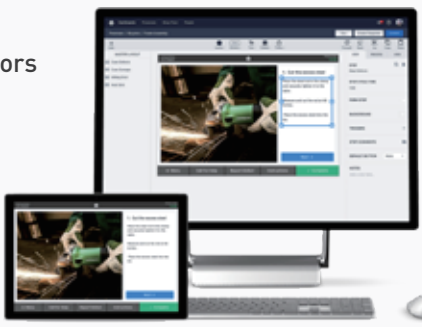


- Report defects manually
- Difficult to aggregate data

operation order



- 9% reduction in return work
- 90% reduction in defects





Digital transformation in training and communication within the Company

Engineer training through the use of the Digital Academy

- Take a total of seven courses (five basic and two advanced) to develop highly skilled technical engineers
- e-learning + practical training for efficient skill acquisition



Basic 5 Courses



Machining Basic



Machining Center Basic



Turning Center Basic



5-Axis Machining Basic



AM Entry

Advanced 2 courses



Mill-turn Center Basic



Process Design Advisor

In-house portal site connecting employees worldwide

- New product information
- Exhibitions and events in each country
- Internal newsletters
- Management Policy Explanation Video
- Work management, payroll information inquiries
- Travel expense reimbursement



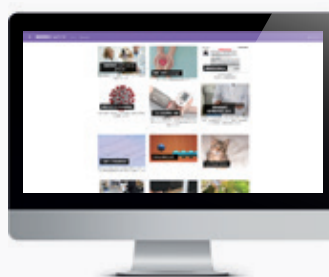
Health Information Home Page (Japan)

Promoting employee wellness and “visualization” of health information. Raise employees’ health awareness

DMG MORI White Paper on Health and Safety (available for internal use as needed)

Health Information Home Page

- Analysis of results of physical checkups
- Trends in health conditions
- Response to new coronavirus, etc.



Health Information Home Page



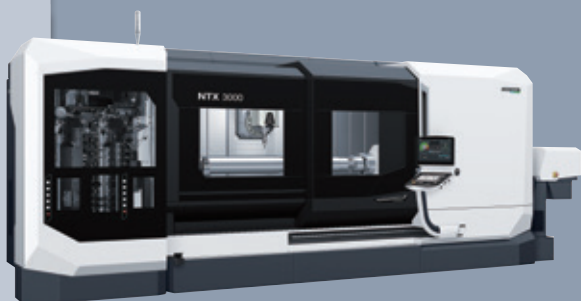
DMG MORI White Paper on Health and Safety

A Year of DMG MORI

(from January to December, 2022)

January

- Launched NTX 2500 and NTX 3000 2nd Generation with a new specification of distance between centers 3000 version
- Supplier monitoring platform "INTEGRITY NEXT" is introduced (Japan)



NTX 3000 2nd Generation

February



Iga Digital Twin Showroom



- Renewal of Iga Digital Twin Showroom

March

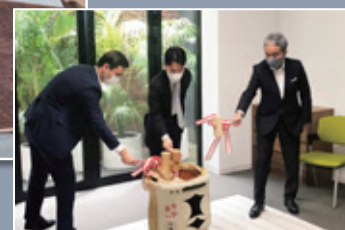
- Signed a comprehensive agreement with Nara Women's University
- Announcement the "Declaration of Partnership Building" with suppliers
- Opened the Additive Manufacturing Laboratory & Fabrication ("AM Lab & Fab") in the Iga Campus
- The 74th Ordinary General Meeting of Shareholders



Signing Ceremony

April

- WALC Inc. is established



May

- The 120th Annual General Meeting of Shareholders of DMG MORI AG
- Real German Pfronten Open House first in two years; DMU / DMC 85 H monoBLOCK debuts
- Opened Digital Twin Showroom at Pfronten factory in Germany plant



June

- Launched CELOS DYNAMIC_{post}
- Launched NTX 500



NTX 500 + IMTR



CELOS DYNAMIC_{post}



Additive Manufacturing Laboratory & Fabrication ("AM Lab & Fab")

July

- Opened Nara Product Development Center (Nara PDC), DMG MORI's largest cutting-edge development base. Introduced a two-headquarters system in Tokyo and Nara.
- Launched e-learning content "Digital Academy" for educational institutions
- Launched sales of video content "Process Design Advisor (Indexed 5-axis Machining)"



October

- Launched new services of *my* DMG MORI "Parts Selector" and "Chatbot"
- Opened Additive Manufacturing Laboratory & Fabrication (AM Lab & Fab) in Tokyo Global Headquarters
- Launched a compact size mist collector "zeroFOG" that can be installed on small machines

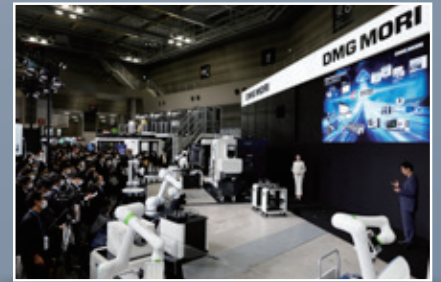


August

- Raise starting salaries for new graduates (effective April 2023, but retroactive to April 2022) and salary revisions for Japan-based employees from July 2022.

November

- Hybrid of JIMTOF2022 exhibition and Tokyo GHQ Open House first time in four years
- GDS (Global Development Summit) held in Tokyo first time in four years



September

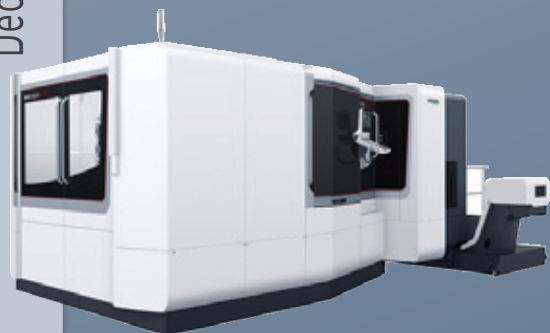
- Decided to install Japan's largest solar power generation system for in-house consumption on the roof of the factory building at Iga Campus (Mie Prefecture) (installed area: approx. 130,000 m²)
- Exhibition at AMB2022 in Stuttgart, Germany
- Held Technology Days in Chicago, United States



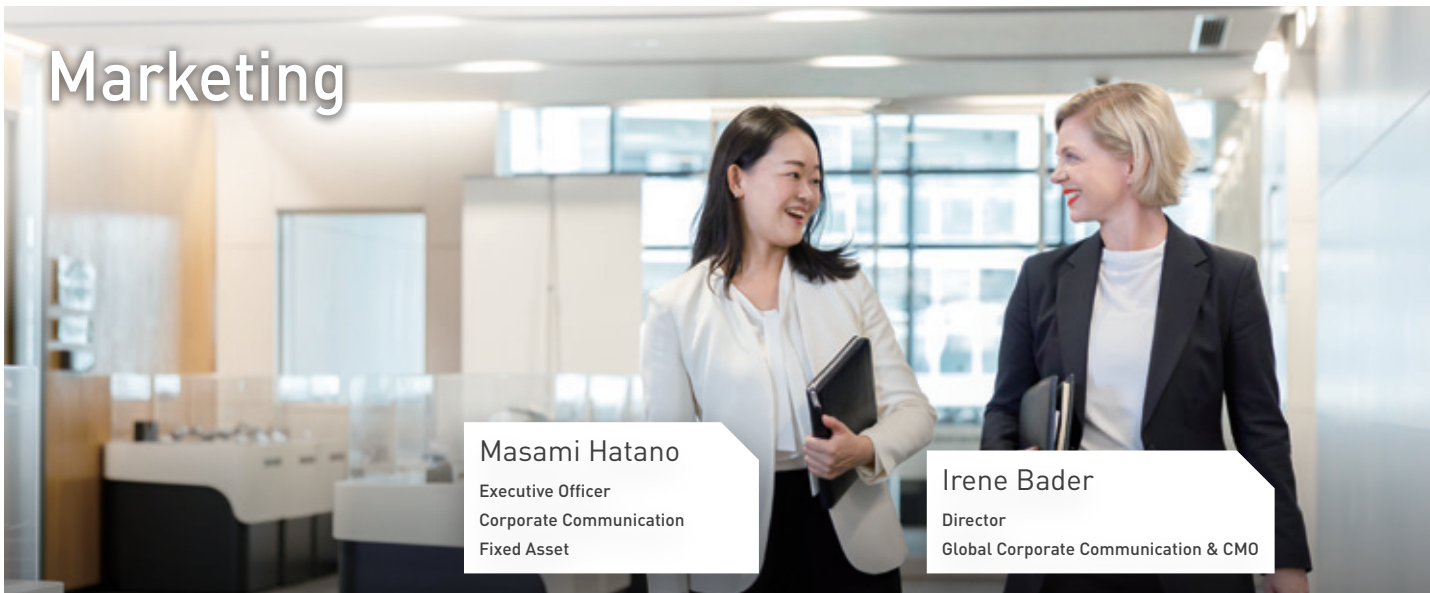
Self-consumption solar power generation system

December

- Development of NHX 10000 μ Precision



NHX 10000 μ Precision



Marketing

Masami Hatano

Executive Officer
Corporate Communication
Fixed Asset

Irene Bader

Director
Global Corporate Communication & CMO

Promoting global marketing that makes full use of digital and physical touch points

Q. What do you think about the role of marketing at DMG MORI and how it is changing?

Marketing is mainly product communication, or in other words the communication with customers about our products and solutions. This happens through different channels, such as face-to-face at Technology Days, seminars, exhibitions and also online through digital events, newsletters, SNS channels and of course via our homepage and digital twin showrooms. It is our job to visualize and make complex technological features easy to understand through different communication channels and also in different languages suitable for different markets all over the world.

But Marketing is also important to position our brand and corporate identity, to make DMG MORI well known and to communicate our values, beliefs and what the Company does. This becomes in my opinion especially important in a highly competitive labor market where skilled workers are in demand.

In addition, internal communication plays a major role in a global company. One purpose is to communicate the strategy, DMG MORI's goals, vision and future plans to involve all employees all over the world and the other purpose is to inform about products, technologies and new developments to our sales engineers to give them the best possible support.

Q. What were your key milestones in 2022?

In 2022 we revitalized physical events step by step. Technology Fridays were held not only in Japan but also in USA and Europe, and the first Open Houses took place again with successful events in our factory in Pfronten and our sales and service office in Chicago where we held the Chicago Innovation Days. We will continue to strengthen our in-house events more and more. This is a great advantage for us as we have so many nice factories and sales and service offices with showrooms where we can show our customers the production sites or host in-house events.

In addition to the local events in our showrooms, the first

exhibitions took place again after the pandemic. JIMTOF in Tokyo was successfully held as well as AMB show in Germany. It was a milestone for us to combine physical exhibitions with the digital content which we developed in the last years. At AMB show in Germany for example we had a huge LED wall showing the Digital Twin Showroom of Iga Campus, this was very interesting for our customers. I believe that the effective combination of digital and face-to-face touch points in our communications has paid off. Our Digital Twin Showrooms provide a huge variety of technology which can be experienced by our customers. This experience is now in tie with a trade show with real people, real machines and personal exchange.

Q. What are the goals and action plans for the marketing department under the medium-term business plan 2025?

The main strategy for the medium-term business plan 2025 is to pursue process integration, automation and digital transformation. Our action plan for communicating this strategy has mainly two steps. The first step is the internal communication. It is important that our colleagues all over the world are well acquainted with our strategy and the medium-term business plan and that all persons who are in



Opening of Digital Twin Showroom at Pfronten factory in May, 2022

contact with customers can explain process integration, automation and digital transformation. Our colleagues, in particular the sales engineers, are the communication multipliers for our customers. This means that we need to prepare a clear internal communication strategy and give our sales colleagues the best possible support to be able to explain our values to our customers.

The second step is the external communication to our existing and potential customers. We will put process integration, automation and digital transformation in the center of our external communication, globally in a variety of languages and suitable for different communication channels, digital and physical.

In 2023, the EMO show, the world largest exhibition in our industry, will take place in Hannover, Germany again. The main theme for DMG MORI at this show will be process integration. I'm looking forward to this special event where we will combine digital content and physical machines for the visitors who will come from all over the world.

Q. What challenges do you face in achieving your goals?

Challenges are always great chances. I'm very much looking forward to bringing the product communications in our industry to the next level together with my colleagues all over the world. This means that we are facing the wonderful chance to strengthen and continue to build our digital contents, which will display our technology and solutions in a more comprehensible way, while we are allowed to concentrate on the real face-to-face interaction with our customers. When we start a marketing project, we now first think about the digital contents like videos, 3D models in our Digital Twin Showrooms, our website and SNS portals, and then, in the second step, think of how we can combine these elements with real events such as showrooms and exhibitions. In a further step, we then make everything available for different markets and in different languages. To properly plan and implement different steps, and to utilize adequate channels for different regions is a great challenge and chance to position DMG MORI as a total solution provider in the manufacturing industry.

On-site events (Open House, Technology Days) held by DMG MORI and large-scale exhibitions which DMG MORI participated

Japan

JIMTOF2022 and Tokyo GHQ Open House held simultaneously



Americas

Chicago Innovation Days (Open House)



Europe

Pfronten Open House (Germany)

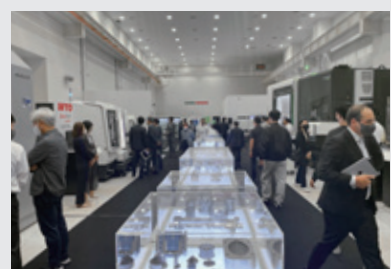


AMB2022 (Germany)



Asia

Korea Technology Days





Development

Haythem Boujnah

Group Manager
Advanced Monitoring and
Simulation Research Center
Process Monitoring
Development Group

Naruhiko Irino

Dr. Eng.
Executive Officer
Advanced Technology,
Automation System

Improving value to customer and contributing to carbon neutrality by innovative products and technologies

Q. What is the role and emphasis of the development department?

DMG MORI's development department develops total solutions to support process integration, automation, digital transformation, and green transformation in our customers' machining. We contribute to sustainable economic growth by improving machining accuracy and efficiency, thereby reducing energy consumption and CO₂ emissions. Specifically, we facilitate the introduction of automation through process integration using high-precision, high-efficiency 5-axis machines and advanced machines, and visualize operating conditions by connecting automated machines to a network. In addition, we optimize production schedules based on digitized machine operating information. Through these efforts, we are developing a system that will enable the production of high-precision products using fewer machines and less energy, with an emphasis on reducing CO₂ emissions.

Q. What are the goals and action plans under the Medium-term Business Plan 2025?

The ambitious new product lines of recent years are the result of our contemplation about what is needed in our customers' production process and what should be realized in the near future, and the measures we initiated to make that possible. Based on this, in our medium-term business plan, we are formulating a vision not only for 2025, but also for 2030 and beyond. First, we will realize process integration, automation, digital transformation, and green transformation at a higher level. In addition, we will create a vision of what the machining process should look like, centering on machine tools, from a top-level perspective, and work to realize it. Through digital transformation, we will make proposals that maximize the return on investment in response to customer requests, while at the same time providing an accurate picture to the customer in advance how they can profit by introducing our products in their factories. This will contribute to the construction of a highly efficient and highly accurate manufacturing environment for our customers.

Q. What challenges do you face in achieving your goals?

Regarding goals that are technically challenging, it is important to link the high-level vision and instructions with practical considerations on how to realize them. On the other hand, for goals which pertain to conventional development, the challenge is in how to develop efficiently or how to utilize development resources efficiently to achieve multiple development items. To achieve this, I will promote the use of 3D data consistently from design to manufacturing. Our goal is to improve development efficiency by 25% through full digitalization of development. In addition, by deploying cutting-edge technology in in-house machining, it is necessary to improve in-house production technology, and to raise the level of functionality and quality of the technology to the next step.

Q. What are strength of DMG MORI's development team?

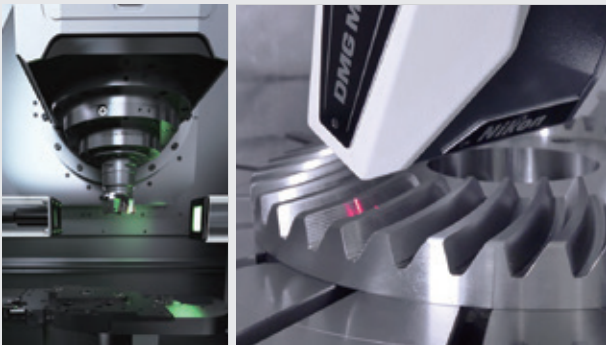
In DMG MORI's development, specialists in each department, such as mechanical, electrical, elemental, AM, software, measurement, and automation, refine unique products and cutting-edge technology every day. In addition, the barriers between departments are low, and the teamwork among different departments, including machining technology, manufacturing, sales and service, is strong. I believe that our greatest strength is our ability to work together to solve common problems. I am confident that we will be able to provide unique new solutions by listening to the voice of our customers and working together with the same goal in mind.

Global Development Summit (GDS / Global Development Summit)



A total of about 1,300 development engineers work in our development bases in Japan, Germany, the United States, Italy, and Poland. At Global Development Summit (“GDS”) held once a year, the persons in charge at each base meet face-to-face to discuss their latest projects. After confirming future development plans at the plenary session, we discuss and share new technologies in the market and the latest trends of customers in the subcommittees for each specialized field. GDS in 2020 and 2021 were held online. On November 2022, a hybrid-style GDS was held in Tokyo with about 100 development employees from Japan and overseas gathering in person and about 200 employees attending online. This was the first time in three years that we have held a face-to-face meeting, albeit partially. This global accumulation of knowledge is one of our strengths in design and development.

Sensing & Measurement



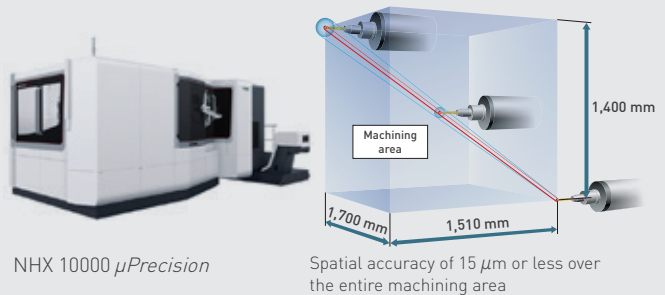
Measuring solutions are important for achieving high-precision machining. First, for tool shape measurement, we developed the “Tool Visualizer,” which performs non-contact automatic tool measurement on the machine tool. This product not only enables high-precision tool compensation but is also reliable for detection of tool abnormalities that helps automation. In addition, we have developed a non-contact on-machine measurement system that uses a laser scanner to measure the shape of workpieces after machining. This eliminates the need to load the workpiece onto a dedicated measuring device, which reduced the workload on the operator and the measuring time by 50%.

Nara Product Development Center (“Nara PDC”)



We opened the Nara Product Development Center (“Nara PDC”), the largest R&D center of DMG MORI, to establish digital transformation and develop cutting-edge technology. Specifically, the center develops next-generation communication technology, AI (artificial intelligence), DX technology that utilizes digital twins, machine tools and peripheral equipment for next-generation multi-tasking machines, and software. Nara PDC has a dedicated development experiment center, and conducts state-of-the-art and innovative development experiments on machine tools, peripheral devices, and control software to be installed in them, including industry-academia collaboration with universities and companies.

Pursuit of high-precision machining and reduction of environmental impact



Our basic policy for product development is to develop machine tools that have a smaller environmental impact while improving machining accuracy through high rigidity and high precision. As an example, in December 2022, we developed the NHX 10000 μ Precision, a large horizontal machining center that combines high rigidity and high precision with a spatial accuracy of 15 μ m or less. This product enables high-precision machining of large workpieces for the construction machinery, aircraft, molds, automotive, and energy industries, and contributes to reduce our customers’ environmental impact by reducing power consumption compared to conventional machines. We will continue to contribute to the realization of green transformation through the development of products that reduce environmental impact while meeting advanced parts machining needs.



Wladislav Artsimovich

Assistant Chief Engineer
AM Development Department

Yoko Hirono

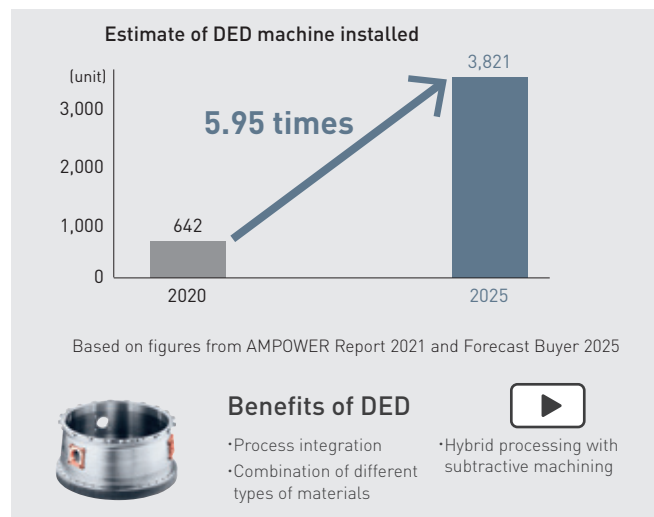
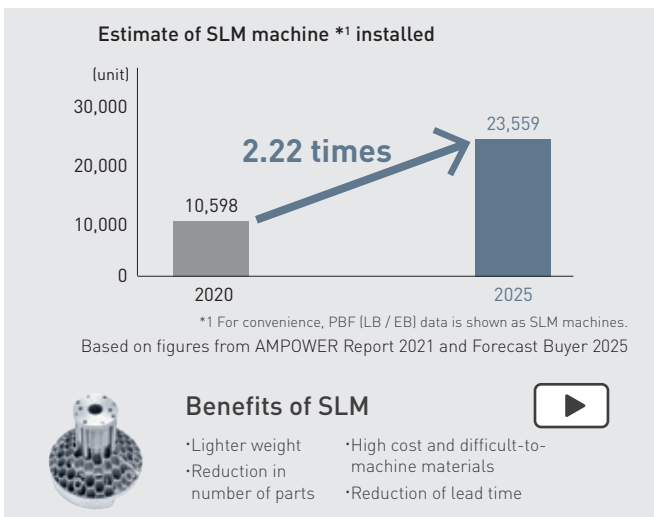
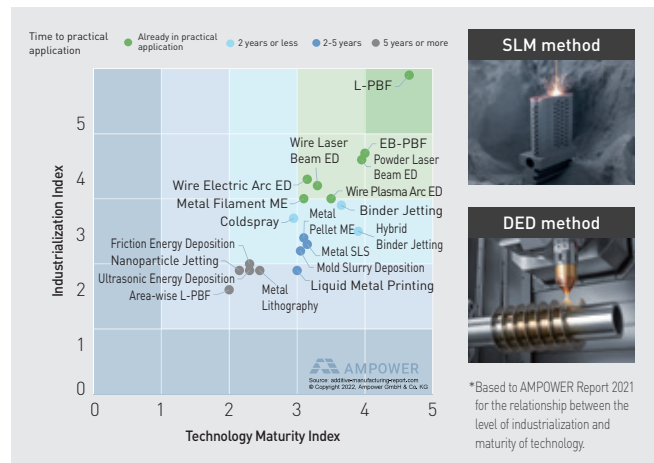
P. E. Jp
Operating Officer for R&D
In charge of AM Development
General Manager
AM Development Department

AM technology which contributes to process-integration, carbon-neutrality, and circular economy

Q. What is “AM”?

The additive manufacturing (“AM”) industry has made remarkable progress since its core technology was first patented in 1986. Along the way, people’s interests changed from rapid prototyping to functional prototyping. Thereafter, it has been spreading in various industries as alternative method of manufacturing that adds new functions. In addition to making parts from scratch, it can also be used for repairs and maintenance, contributing to the reduction of waste and energy consumption. The Company is working on two types of AM technology with a high industrial level, and has development bases in three countries: Germany, Japan, and the United States. Under a global system, we are deploying this technology in various industries as well as in the space industry. In the early days of DMG MORI’s AM technology, customers in the aerospace industry accounted for a large percentage, but in recent years, the number of cases in other industries has increased. According to the 2021 Annual Report of the Environment, the Sound Material-Cycle Society and Biodiversity, companies and financial institutions are taking the opportunity of the Paris Agreement to incorporate the reduction

of CO₂ emissions into corporate management worldwide, along with the movement of ESG finance. AM technology is attracting more and more attention as a manufacturing method that supports these major goals.



Q. What is the role and focus of the AM Development Department?

AM machine is also a machine tool. The role of machine tools is that they are commercial products that benefit the customer. When human beings try to lead a decent lifestyle, they have to wear clothes, eat, and sleep on beds and mattresses. Humans need machine tools somewhere in the process to produce such goods. Process integration, automation, and digital transformation are key to produce more supplies with fewer people. Automation will become easier because more things can be handled by a single machine, and when automation is possible, fewer people will be needed to take care of the machines, and instead there will be a need for sensing what has previously been looked after by humans. The big data collected as a result is analyzed by AI, and it leads to digital transformation that continues to improve.

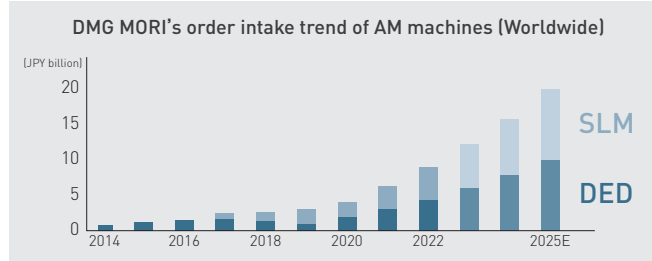
In the field of machine tools, we can support the productivity improvement of our customers by improving the performance of our products, and we can also reduce energy consumption by shortening operating times. This is not at all different in AM machines. In order to benefit our customers, we conduct research with universities and various research institutes, use that research to develop elements, combine elements to develop products, guarantee quality, and then take the profits from sales necessary to conduct these activities. Maintaining a balance between these five elements is what we at AM Development Department consider as most important, and we believe it is our role to promote carbon neutrality and circular economy in the world.

Q. What are the goals and action plans under the medium-term business plan 2025?

We aim to achieve sales of JPY 10 billion for machine models that are equipped with Selective Laser Melting (“SLM”) and Directed Energy Deposition (“DED”) methods, respectively, including relevant services, spare parts, and contract processing, for a total of JPY 20 billion. AM has many advantages that are not yet well known in the market.

- By molding only the necessary parts, wasteful chips are reduced (e.g. impellers, die-cut rolls, etc.)
- If a part is broken, it can be repaired or maintained, or if there is a minor model change, the existing part can be reused, and it can be used until the part’s life limit.
- Molding of integrated parts eliminates the need for dies and eliminates energy consumption that is necessary in the processes of mold production, management, or disposal.
- By coating the surface of parts with a high hardness material using AM,
 - ▶ (1) coils for induction hardening will no longer be required, reducing the energy generated in coil manufacturing;
 - ▶ (2) furnace necessary to process the batch, such as carburizing, quenching, and nitriding, will no longer be required, reducing the energy required to control the temperature of the entire furnace; and
 - ▶ (3) hard chrome plating will no longer be required, eliminating concerns about environmental impact in waste liquid treatment after plating.

We have accumulated such success stories with our customer, and we believe it is important to disseminate them as much as possible we can utilize our experience to help more customers improve their profits.



Q. What challenges do you face in achieving your goals?

We realized that we were too committed to improving the profits for more customers, and as a result, we were not able to increase our internal use of this technology. Therefore, with the help of the production technology department, we started using LASERTEC 3000 DED hybrid to machine tool spindle parts. Upon application, we realized that we could replace hard chrome plating, which used to take more than 5 days of lead time, with 1.5 minutes of coating, which is by far the fastest and cheapest way to manufacture. We believe that by increasing the number of such applications and sharing them with our customers, we will be able to achieve our goals.





Production

Kazutoyo Moriguchi

Executive Officer
Production Engineering
Machining
President,
DMG Mori Seiki Precision
Components Co. Ltd.

Asami Nishida

General Manager
NC / Electrical Cabinet
Procurement Department

Tsutomu Tokuma

General Manager
Multi-axis Machine
Manufacturing Department

Contributing to maintaining high quality, stable supply, and less CO₂ emissions

Q. Why is it necessary to produce parts in-house?

There are three major reasons for in-house production. First, high-precision, high-rigidity, and high-durability machine tools require suitable parts, and in-house production allows to improve and maintain quality. In addition, in-house production allows us to accumulate machining technology and cost information of core components internally, which is also important for coexistence with suppliers. Secondly, there is a risk that the lead time from ordering to delivery is longer with external suppliers, as part designs vary according to the many different functions of machine tools. The purpose of in-house production is to secure competitive advantage in procurement lead time from after the completion of development to completion of production. Thirdly, the demand for machine tools has been cyclic. Suppliers, on the other hand, do not have the capacity to meet peak demand for machine tools. There is an advantage that any supply shortages at external suppliers can be compensated by in-house production. For these three reasons, DMG MORI has promoted in-house production. From the beginning of 2022, DMG MORI spun off its precision components manufacturing departments for spindles, ball screws, turrets, cross roller bearings, and precision sheet metal into Precision Components Division to expand business and thoroughly manage profits.

Q. What are the goals and action plans under the medium-term business plan 2025?

Demand for machine tools recovered rapidly after bottoming out in the second quarter of 2020. During this recovery process, supply shortages from suppliers became an issue across all industries. However, DMG MORI was able to respond relatively well to production by promoting in-house parts production, building long-term relationships of trust with suppliers, and globally diversifying suppliers. However, in 2022, as orders increased more than planned, supply chain issues for some parts emerged. In the medium-term business plan 2025, we aim to increase the value-added output of in-house parts by approximately 60% compared to that of FY2022. In particular, we will increase production of spindles, ball screws, and ATCs. In order to contribute to maintaining high quality, stable supply, and reducing CO₂ emissions in response to the increasing

demand for 5-axis machines and mill-turn centers. In addition, we will improve productivity in order to absorb cost increases such as rising material prices and revisions of employee salaries. We have already reduced the number of processes required for in-house production of ball screws to one-third that of conventional processes. We will improve efficiency by using the latest machine tools, peripheral technologies, and digital technologies produced within the group. In the next three years, we will start using DMU 1000 SE to machine large castings and equip DMG 340 with in-machine automatic measurement to further reduce machining time. Combining these process integration and in-machine measurement with digitalized production management using TULIP will lead to improved quality and productivity.

Q. What challenges do you face in achieving your goals?

We are aware that the lack of skilled engineering personnel for the launch of production systems is a major issue for machining of new parts, and we are therefore training engineers for the launch of new products and parts. On the other hand, we have the advantage that we can deploy cutting-edge machinery and digital technology from group companies for the machining of precision parts. For subtractive machining, we can introduce cutting-edge 5-axis machines and mill-turn centers, and for grinding processes, we can utilize TAIYO KOKI's technology. Furthermore, in order to automate these processes, we utilize the accumulated know-how of in-house engineering, digital twin test cuts, and new digital transformation technology such as programming automation. We will make good use of these in-house resources to achieve our goals.

Reducing CO₂ emissions related to in-house parts also contributes to DMG MORI's GREENMACHINE

In order to realize a machine that is environmentally friendly, reducing CO₂ emissions related to individual parts is also a critical issue. The Company is already purchasing CO₂-free power, but we have reduced power consumption by integrating the manufacturing process to shorten the machining time and introducing GREENMACHINE produced in-house. Through these measures, we will contribute to achieving DMG MORI's carbon footprint reduction targets with SBT certification by 2030.

In-house production of key components



Control panel

Scale

Direct Drive Motor

Spindle

ATC

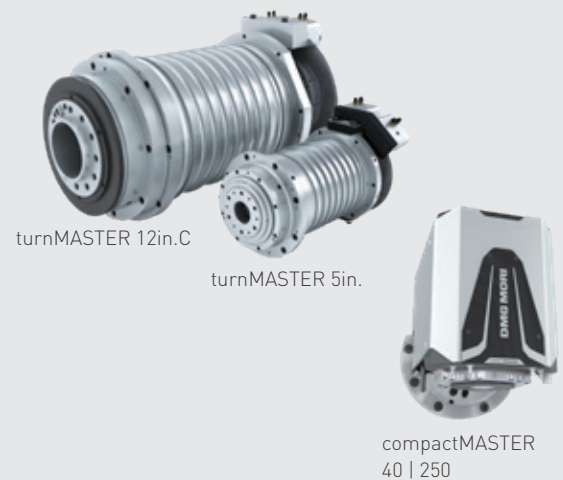
Turret

Ball screw

DMG MORI is working on in-house production of major parts for the purpose of not only improving quality and shortening delivery times, but also shortening product development time and ensuring stable supply. As with ball screws and ATCs, the spindle factory plays an important role with a consistent process from machining, assembly, to inspection. We are expanding in-house production in Japan, Germany, and other parts of the world.

Released New models of high-performance spindle compactMASTER and turnMASTER

In June 2022, DMG MORI released two types of spindles. One is the turn-mill spindle named “compactMASTER 40 | 250”, which is the smallest class in the world with a total of 250mm in length but has high output and a maximum rotation speed $42,000\text{min}^{-1}$. The other is “turnMASTER 5in.”, which is a high-precision and high-performance spindle for use in turning centers and mill-turn centers. In February 2023, DMG MORI developed a high-performance turning spindle “turnMASTER 12in.C”, which is about 18% smaller than the conventional model and can hold a chuck as large as 12 inches on a small machine tool. Since DMG MORI manufactures key components in-house, we are able to develop and manufacture a variety of spindles. In addition, DMG MORI is so confident in its quality that we offer a 3-year warranty period for spindles. DMG MORI provides machine tools which are equipped with high-speed, high-performance spindles and manufactured under a carbon-neutral system, thereby contributing not only to improve the productivity of its users, but also contributes to reducing CO₂ emissions and realizing environmentally friendly production sites.



Digitization of production sites –TULIP introduced to global production sites

DMG MORI has introduced “TULIP,” a platform for creating applications to support production, to its main production sites. TULIP enables shop-floor personnel to create various applications which can be used for work instruction, quality control, equipment monitoring, and data linkage with other systems such as Manufacturing Execution System (“MES”). In addition, TULIP digitizes paper-based work procedure manuals, quality check sheets, and daily inspection items, making it easier to visualize and analyze production data. This enables rapid process improvement.



Engineering



Satoru Kashiwagi

General Manager
Product Sales Control Department
Technical Sales Department

Yuka Hashimoto

Senior Engineer
Iga Global Solution Center
Time Study Group

Yasuka Yoshida

Senior Engineer
Engineering Control Department
Tokyo Global Solution Center
AM Technology Group

Improve customer productivity through process integration and automation

Q. What is the background behind the growing importance of the engineering department's role?

The demand for machine tools is expanding from the mass production industry in the past to the high-mix, low-volume production industry such as semiconductor production equipment, medical, and aerospace. In addition, the owners of small and medium-sized enterprises, which account for the majority of our customers, are undergoing a generational change, leading to the introduction of new technology as well as machines and systems that emphasize investment efficiency. In particular, cutting-edge machine tools such as 5-axis machines and mill-turn centers as well as MATRIS Light, which was launched in the market in August 2021, are rapidly gaining interest among small and medium-sized enterprises. As the needs of our customers change in this way, our role of providing the most productive processing methods, automation, and digital transformation is increasing. The role of engineering includes proposing optimal machining methods, designing automation, installing the system at the customer's factory, and checking the operation. Through proposals for machining technology, time studies, or test cuts, our department secures quality such as work accuracy and pursues higher productivity. This increases customer satisfaction, thereby contributing to DMG MORI's increase in order intake.

Q. What is your competitive advantage in engineering?

In the medium-term business plan 2025, improving customer satisfaction through process integration, automation, and digital transformation is a core strategy. The most important thing for our customers is to keep their machines running. In addition to complex and ultra-precision parts, as high-mix, low-volume production increases, machine non-operating time increases due to changes in machining programming, setup changes for fixtures and tools, loading and unloading of work pieces, and measurement of machined parts. In order to reduce the non-operating time of the machine, we recommend first introducing process-integration machines such as 5-axis machines, mill-turn centers, and AM. With integration of processes, it is possible to reduce peripheral measures such as fixtures, tools, robots, and operators that were previously required for each process, and achieve more efficient automation. In addition to being able to propose many types of process-integration machines, DMG MORI is able to offer

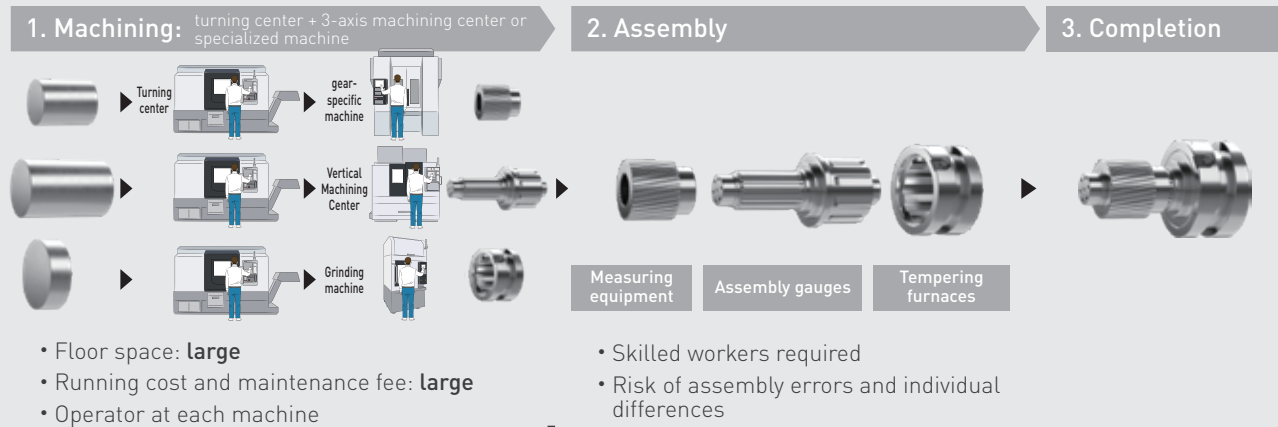
services such as machining support using application software, a wide range of peripheral equipment including robots, installation of automation systems, and prompt delivery of spare parts. Our greatest strength is that we can deliver such services as a one-stop provider. In addition, the extensive experience and number of automation that we have delivered since the early 2000s gives our customers peace of mind when introducing process-integration machines and automation systems.

Q. What are the challenges in your medium-term business plan 2025?

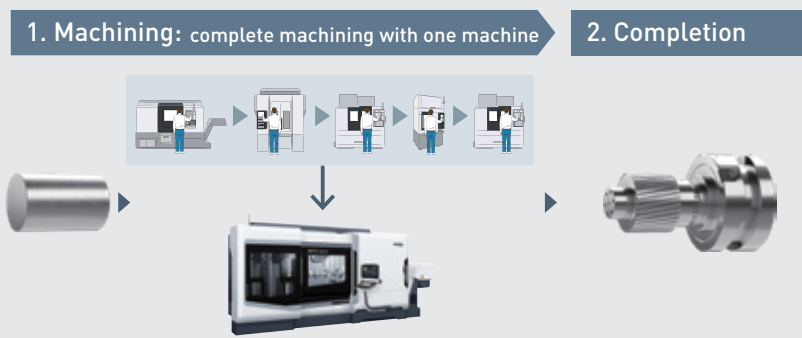
In order to expand the engineering business, other than increasing the number of process-integration machine models, it is essential to develop engineers who can propose optimal production methods including peripheral equipment for automation, systems, and digital transformation. As for process-integration machines, we have developed the largest number of models in the industry, such as 5-axis machines, mill-turn centers and AM with sufficient competitive advantages. As for peripheral equipment, MATRIS Light has been well received by customers. We have also solved the 3 evils of machining, developing "AI chip removal", "zero sludge coolant tank", and "zeroFOG" to prevent machine stoppages. These devices have become essential for the introduction of automated systems. Autonomous Mobile Robot ("AMR") has drawn much attention from customers at the Japan Machine Tool Exhibition ("JIMTOF") held in November. Peripheral devices have also been enhanced considerably. In the future, I think that the development of more accurate on-machine measuring devices will become more important in order to further promote automation. The biggest challenge is the development of engineers. We need personnel who can propose machining methods, machine tool selection, and automation systems in accordance with the customer's work piece. Experience is our greatest weapon. Fortunately, DMG MORI has built up a global track record of complex and ultra-precision parts machining and automation, and we have also built a portal that makes it easy to search for this information and know-how using AI. In addition to hands-on experience, we intend to train engineers through digitized programs, so that we can improve our ability to make proposals that satisfy customers, and contribute to the expansion of DMG MORI's engineering business.



Conventional (divided process): Combination of divided parts



Process integration on mill-turn centers



Benefits

- High dimensional accuracy
- High shape accuracy
- High surface quality

Reduction in

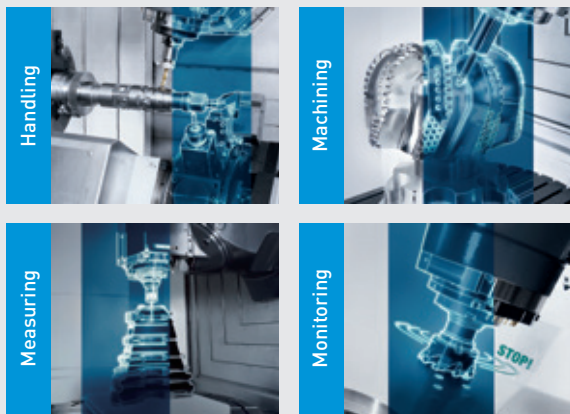
- Setup time for each process
- Intermediate work-in-process inventory
- Assembly time
- Electricity consumption
- Carbon footprint

(Example) **Housing machining**

Conventional	<p>3 machines (turning center + machining center + grinding machine)</p> <p>Machining time: 393 minutes</p> <p>Power consumption: 57.49 kWh</p>
Process integration	<p>1 machine (5-axis machine)</p> <p>Machining time: 262 minutes</p> <p>Power consumption: 45.10 kWh</p>
Curtailment	<p>Machining time: 33%</p> <p>Power consumption: 22% (12.4 kWh) / piece</p>

Technology Cycles

Technology Cycles are solutions that make complex machining easier and faster. Machining, setup, and measurement, which used to be performed by specialized machines, programs, and cutting tools, can now be performed easily and with high quality by anyone using general-purpose machine tools and standard tools and fixtures.



Technology Cycles "Multi-Threading 2.0"

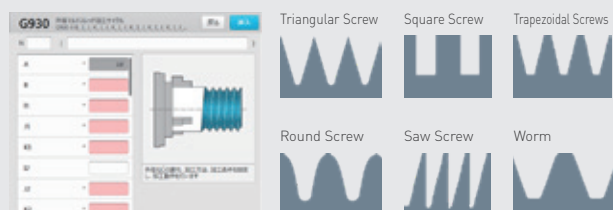
Worm gear machining with a general-purpose machine

- To machine special-shaped screw
- To simplify complex programming



Outcome (post-introduction)

- Various thread shapes to be easily created in an interactive format
- Machining programs for special shaped threads to be created on the machine without CAD / CAM
- Worms with involute curve tooth forms possible



Automation Solutions

13 product lines, 57 products

From automation systems that dramatically improve machine tool productivity to state-of-the-art smart factories that utilize digital data, DMG MORI provides everything including fixtures, tools, and programs to meet customer needs as a one-stop provider.



High Speed ↑	Workpiece Handling	TURNING	Robo2Go Turning SR (WASINO) IMTR - In-machine travelling robot (NTX 1000)	Robo2Go MAX	MATRIS	GX/GX T	
		Pallet Handling	MILLING	WH Cell*1	Robo2Go Milling	MATRIS Light	WH Flex
			PH Wheel*3	PH Cell 2000	LPP	CPP	PH-AGV TH-AGV
			AWC (NMV/CMX V) RPS*2	PH 150 PH 50	CTS - Central Tool Storage		
Tool Handling							
		Automation of stand-alone machines	Automation connected to multiple machines	Connectable and scalable automation for multiple units			

→ Scalability

*1 DMP, CMX V, CMX U, DMU, DMU monoBLOCK, DMU eVo, LASERTEC *2 NHX, DMC H linear, monoBLOCK, duoBLOCK, Portal *3 DMC 65 monoBLOCK, DMU 65 H monoBLOCK

Automation System Case Studies

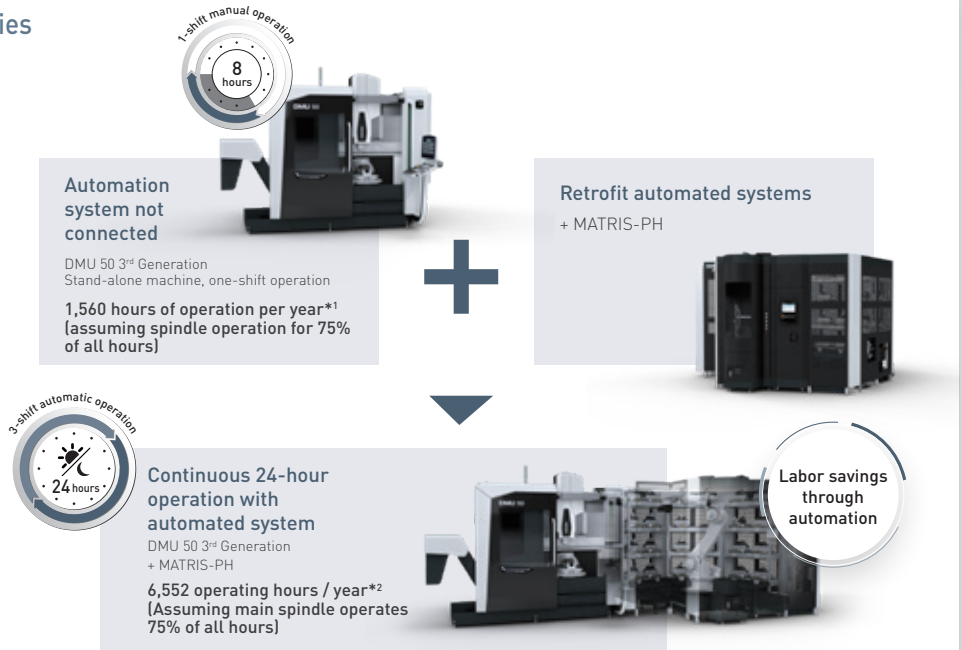
Benefit

- Resolve the shortage of skilled staff
- One operator operates multiple machines at the same time
- Realization of unmanned operation with advanced automated driving
- Shortest return on investment, maximization of value added
- Shorten setup time

Warranty Service

- Operating specialized websites
- Offering a single contract contact for inquiries
- CE certified

*1 52 weeks x 5 days x 8 hours = 2,080 hours / year
*2 52 weeks x 7 days x 24 hours = 8,736 hours / year



DMG MORI Qualified Products (DMQP)

DMQP: DMG MORI Qualified Products

By combining DMG MORI's machine tools with high-performance, high-quality peripherals that are most suitable for them, customers will be able to start their production faster and further improve productivity.

DMQP is a collection of carefully selected and certified peripheral devices for DMG MORI machines that excel in quality, performance, and maintainability.

Together with DMQP partners, DMG MORI will create maximum value for its customers.

Benefits of DMQP

Benefit 1 DMG MORI arranges for equipment of superior quality, performance, and maintainability as a single source	Benefit 2 Customers enjoy "2-year warranty" which is the same as machine body (this benefit is offered only in certain regions and does not cover consumables such as cutting tools)	Benefit 3 365-day toll-free maintenance service (offered in Japan only)
--	--	---

Four DMQP Categories

Handling		Shaping		Measuring		Monitoring	
robot system	bar feeder	oil skimmer	rotary window	tool pre-setter	in-machine measuring system (tool)	electrical cabinet chiller	coolant chiller
		high-pressure coolant system	hydraulic steady rest	in-machine measuring system (workpiece)	surface roughness measuring system	coolant float switch	signal lamp
		mist collector					

DMQP

+

Peripherals and solutions made by DMG MORI

From the proposal of peripheral equipment required for installation and start-up of machine to the expansion of product lineups which contribute to improve productivity in customers' sites

Proposal of peripheral equipment required for installation and start-up of machine

chips

AI chip removals

coolant

zero sludge coolant tank

mist

zeroFOG

DMG MORI's unique solutions for the 3 evils of machining



Services

Kentaro
Blumenstengel

President
TECHNIUM CO., LTD.

*my*DMG MORI is a comprehensive service portal and provides product planning software

Q. What is the role and focus of TECHNIUM CO., LTD.?

TECHNIUM CO., LTD. was established in 2018 as a joint venture between DMG MORI CO., LTD. and Nomura Research Institute, Ltd., which is known for its information technology. Since then, TECHNIUM has launched a membership service platform “*my*DMG MORI,” which serves about 10,000 registered customers in Japan and about 50,000 worldwide. We have also expanded sales of our IoT service, “CELOS Club,” which currently provides connectivity to more than 3,000 customer machines in Japan. *my*DMG MORI also offers an e-learning service, “Digital Academy”, on its website with seven courses including 5-axis machines, mill-turn centers and AM. In addition, TECHNIUM is engaged in the software sales business such as CAD / CAM software.

TECHNIUM works closely with DMG MORI SALES AND SERVICE CO., LTD. to bring the latest digital solutions to the customer’s shop floor as well as machine tools.

Q. What are the goals and action plans under the medium-term business plan 2025?

Our biggest challenge over the next three years is to transform *my*DMG MORI from a service platform into a platform that meets the comprehensive needs of machine tool users. At the heart of this is an online shop for the consumables, cutting tools and peripherals that DMG MORI customers need every day. Therefore, in August 2022, we opened e-commerce site for spare parts and consumables named “Parts Selector” on the *my*DMG MORI portal. This is part of a plan to grow online sales volume to JPY 2.5 billion while improving the usage rate of *my*DMG MORI toward 2025. In addition to e-commerce, we plan to use *my*DMG MORI as a portal for new cloud services that will be deployed from 2023. In the medium term, our goal is to consolidate all service contact points for customers into *my*DMG MORI.

Another goal is to launch a business that sells and supports installation of software related to production management for

small and medium-sized enterprises (SMEs). We expect that there is a great business opportunity in helping SMEs to improve their efficiency, as SMEs still often manage their production, including production planning, in an analog way. TECHNIUM will start selling subscription-based production scheduling software “ISTOS” from 2023. Together with “DMG MORI GATEWAY,” a software that connects all the equipment in the customer’s factory, it is possible to automatically link the production schedule and actual machine operation data, leading to improving the efficiency of manufacturing for the customer. By linking this system with the integrated production control system for automated cells or “MCC-TMS,” a tool management system provided by DMG MORI, we will be able to provide customers with packaged digital vertically integrated solutions.

Q. What challenges do you face in achieving your goals?

In order for customers to use the online shop provided by *my*DMG MORI, we need to address their diverse needs, such as internal approval processes, authorization management, and payment methods when purchasing goods. Therefore, we understand the challenges our customers face, and in parallel, we research functionality of e-commerce sites in other industries to create cutting-edge online store. In addition, in order to succeed in subscription-based software sales, we need to closely follow up with our customers to ensure that their adoption of our software is economically viable. For this purpose, we would like to work on customer success management.

Q. Long-term outlook

CELOS X, a new cloud solution to be released in 2023, will make the use of machine data more flexible than ever before. The use of such data enables innovation in business models. In the long term, TECHNIUM aims to continue to provide its customers with creative and innovative digital solutions without being bound by the past.



Transforming customer's production site with digital transformation

The latest digital and sensor technologies digitize various machine tool parameters. DMG MORI GATEWAY is a service that allows customers to connect not only DMG MORI machines but also other machines in the factory to DMG MORI's server, check machine information via the internet, and use the data. Data is accumulated through a server on the cloud, which is protected by strong security. Therefore, the service can be introduced safely and at low cost. Real-time data visualization makes it possible to formulate management strategies based on data and maximize asset utilization.



*umati is a trademark or registered trademark of Verein Deutscher Werkzeugmaschinenfabriken e.V.

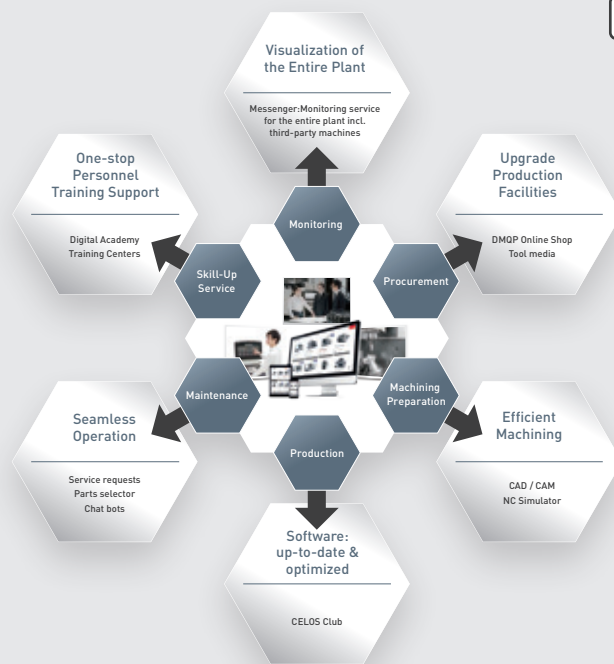
*MTconnect is a trademark or registered trademark of The Association For Manufacturing Technology.

*OPC UA is a trademark or registered trademark of the OPC Foundation.

*MQTT is a trademark or registered trademark of International Business Machines Corporation.

my DMG MORI

In September 2019, we introduced the membership service platform "my DMG MORI" as a service that directly provides customers with added value through digitization. As a result, customers can instantly check the machine number, delivery date, or warranty period of their machines in each factory, as well as view operation manuals and easily obtain historical information of on-site service and repair or replacement parts. In addition, we have added the ability to directly request repairs online and the ability to order spare parts.



CELOS DYNAMICpost

Realization of digital twin in the machining floor Software that seamlessly connects CAM and machine tools

The newly developed CELOS DYNAMICpost is a PC software that combines three functions into one: post processor*1, cutting simulation, and cutting capability optimization, which previously had to be purchased separately. Developed by DMG MORI, a machine tool manufacturer, CELOS DYNAMICpost provides standard support for functions specific to DMG MORI machines and generates highly reliable NC programs that maximize machine performance. In addition, the product reduces the need to manually adjust NC programs and significantly shortens the time from program creation to machining. CELOS DYNAMICpost also contributes to reducing energy consumption by allowing digital machining simulation and thereby eliminating the need for trial cutting on the machine.



*1 Post processor: A function to convert toolpaths (machining paths) generated by CAM into NC programs suitable for the control of machine tools.



Human Resources Development

Yosuke Nakatsukasa

Executive Officer
R&D Management / Accounting /
Human Resources
Production Human Resources

Tamaki Ueda

Group Manager
Human Resources Dept.
Payroll / Labor Relation Group

Human Resources Development Policy for 2025

On December 14, 2022, the Company announced its three-year medium-term business plan until 2025. In the plan, we determined that it is essential for our company's growth to secure and develop employees with a high level of vision, who are able to look at the direction management should take in the rapidly changing machine tool industry, and to act on their own initiative with a sense of ownership.

Q. Investment in Employees

Currently, the DMG MORI group employs about 12,000 employees, who vary in terms of language, nationality, gender, and field of expertise, and work in countries, including Japan, Germany, the United States, Italy, Poland, and China. Employees represent 59 different nationalities. The regions, industries, and size of our customers and suppliers are also diversifying. In order to deliver optimal solutions to all customers around the world, the employees must brush up their skills and knowledge. The Company has also been diversifying its hiring process, and recruiting not only graduates from universities, graduate schools, technical colleges, junior colleges, high schools, but also doctoral course graduates, overseas university graduates, and those who are in their mid-careers. Securing highly skilled employees at international standards will become even more important in the future. Therefore, in July 2022, the Company has raised the starting salary for new graduates in Japan in order to adjust the salary level to a global standard. The starting salary for new graduates has been significantly revised for the first time in four years since 2019. For new employees joining the Company from April 2023, doctoral course graduates will be raised from JPY 334,150 to JPY 475,000, master's course graduates from JPY 254,280 to JPY 310,000, and undergraduates and technical college increased from JPY 272,210 to JPY 300,000 (all monthly salaries). At the Company, there is no wage gap between male and female employees. We will continue to work to recruit highly skilled employees regardless of nationality or gender.

Q. Providing opportunities for individual employees to grow

The Company also places great importance on employee training, and in addition to the traditional training by job level, the Company provides many opportunities for employees to grow. To give a specific example, DMG MORI holds the Global Development Summit as an initiative unique to our company with a global development system. This is an annual large-scale conference with a total of about 300 developers from all over the world, mainly Japan and Germany, in which the attendees discuss medium- to long-term development plans for each technology field over several days. The discussions among

participants with different positions and responsibilities, while experiencing firsthand the discussion styles of both the Japanese and German sides, are not only an encouragement to the Japanese-German cooperative development system, but also function as a powerful opportunity for participants to gain stimulation and learning, and to reconsider their individual career development.

We have started training for managers from October 2022. The purpose of this program is to establish a cycle to sustainably develop human resources that will contribute to our growth in 2025 and beyond. The HR department selects managers, who will participate in the training and are expected to demonstrate leadership in their respective workplaces as "in-house trainers." In 2022, the training was held twice, with about 10 participants each time, and the Company aims to train about 100 "in-house trainers" by the first half of 2023. We are also encouraging employees to pursue their professional developments. From 2022, the Company has become a platinum member of the Metaverse School of Engineering established at the University of Tokyo. Our employees can enroll in online educational programs which teach them the latest trends in engineering and beyond, such as artificial intelligence, entrepreneurship, and next-generation communication. In collaboration with WALC Inc., which was established in April 2022, the Company will continue to strongly promote the development of employees' resources who can lead the shift to digital transformation.

Q. Measures regarding Gender Diversity

In terms of diversity, the Company will also focus on increasing the ratio of female managers. In the medium-term business plan announced in December 2022, the Company set a goal of increasing the ratio of female managers to 15% or more by 2025. Even at present, we are not closed to career opportunities based on gender. However, in general, women in the manufacturing industry tend to be concentrated in certain positions, such as back office work. I believe that it is important to increase the number of women who can be active in various fields and to promote a change in the awareness of career development among female employees.

Creating an environment where everyone can work comfortably

Practice “play hard, study continuously, work together”

The most important foundation for providing high-quality products and services to our customers and achieving sustainable growth as a company is a highly motivated and innovative group of employees. DMG MORI has continuously been working to create an environment in which each employee, regardless of gender or individual life stage, can work with a sense of fulfillment and vitality.

Increasing employee engagement

In order to hire excellent employees who can provide higher added value to our customers and keep them highly motivated, DMG MORI has revised the salaries of our employees globally in 2022. In particular, the Company has revised the starting salary and annual income of our employees in Japan to wage levels comparable to those in Europe or the United States. In addition, in order to practice one of DMG MORI’s mission statements, “Play hard, study continuously, work together,” the Company has been working to reform employee work styles, improve productivity and create a working environment in which each employee can play an active role and live a sustainable life. The Company is strictly managing working hours and office hours, ensuring intervals between working hours, and encouraging all employees to take a full 20 days of paid leave per year.



Rie Yamaguchi

General Manager
Interpretation Office /
R&D HR Department,

Revision of starting salary for new graduates (effective from April 2023, but retroactively effective to those who started working from April 2022)

Final educational background or degree	Average age	Starting salary	Starting annual salary
Doctoral degree	27 years old	JPY 475,000* ¹	JPY 6,825,000* ²
Master's degree	24 years old	JPY 310,000	JPY 4,650,000
University (undergraduate degree)	22 years old	JPY 300,000	JPY 4,000,000
Technical college specialized course			
Technical college regular course	20 years old	JPY 290,000	JPY 3,700,000
Junior college			
High school	18 years old	JPY 280,000	JPY 3,500,000

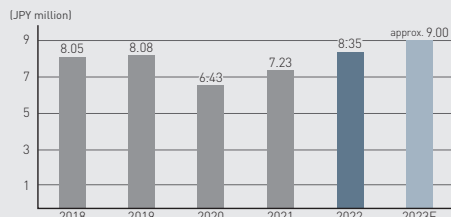
*¹ Including JPY 50,000 / month of qualification allowance and JPY 100,000 / month of skills allowance

*² Including JPY 1.2 million / year of skills allowance

* This data is based on Japan-based employees (regular employees and fixed-term employees)

Average annual income

Salary revision for Japan-based employees (July 1, 2022)

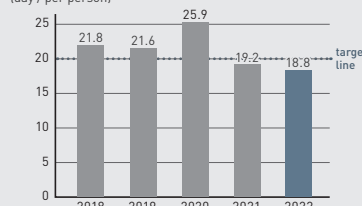


* Includes base salary, qualification salary, position salary, bonus, child allowance, housing allowance, and overtime allowance.

* Excludes dormitory / company housing, meal allowance, commuting allowance, employee stock ownership incentive, childcare expense support, travel expense support for family visits, medical checkup support, and other benefit related payments.

Average number of days of paid leave taken per person per year

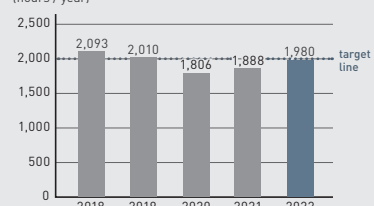
(day / per person)



* This data is based on Japan-based employees (full-time employees and fixed-term employees). Number of paid leave days is converted to 20 days granted.

Average total working hours per person

(hours / year)



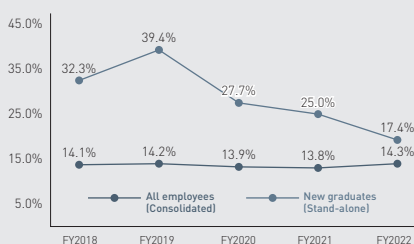
* This data is based on Japan-based employees (full-time employees and fixed-term employees)

Gender diversity and equal opportunity

In order to incorporate diverse perspectives into management and product development in the face of drastic changes in customer demands and society, the Company will also give due consideration to gender diversity, and will work to increase the ratio of female managers by 2025 in Japan, where the percentage of women in management positions is particularly low. As a medium- to long-term measure, the Company is also working to increase the ratio of women in new hires in order to lead the increase of female ratio in the machinery industry.

To enable female employees to maximize their potential, the Company provides opportunities for growth through job rotation and internal and external training so that they can gain work experience regardless of their gender, and has a salary structure that is commensurate with their individual duties and achievements. As a result, there is almost no difference in average annual salary between male and female employees by position.

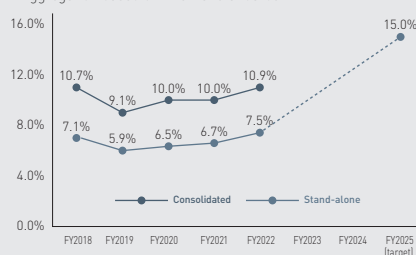
Percentage of female employees (Japan)



* Japan-based employees

Percentage of female employee in management positions

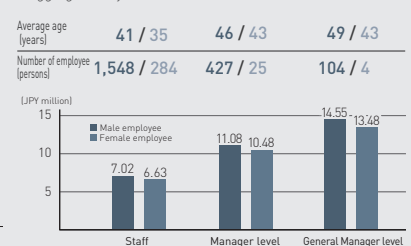
* Aggregation based on internal standards



* Japan-based employees

Average annual salary by gender (FY2022)

* Aggregation by title based on internal standards



* Japan-based employees

Work-life balance

Taking actions under the Act on Advancement of Measures to Support Raising Next-Generation Children

The Company formulated an action plan based on the “Act on Advancement of Measures to Support Raising Next-Generation Children” and received “Kurumin,” a certification mark issued by the Ministry of Health, Labor and Welfare to companies that actively work for the development of the next generation.

The “Kurumin” certification can be obtained by companies that have achieved the goals set forth in the action plan, and is a proof of recognition as a company that actively promotes support for work-life balance.

The main initiatives we have undertaken to date are as follows

1. Extension of childcare leave until the child reaches the age of two
2. Expansion of the scope of application of the reduced working hours for childcare until the child graduates from elementary school
3. Introduction of a one day paid leave that fathers can take when a child is born
4. Introduction of a system that allows employees to take time off to care for their children on an hourly basis
5. Introduction of a preferred re-hiring system for employees who left the Company due to childbirth or childcare
6. Introduction of a system in which a total of 20 days of childcare leave is paid for if the employee takes more than 10 days off at a time (can be separated in two occasions).
7. Provision of financial allowance during childcare leave
8. Provision of financial allowance if the employee decides to return to the workplace prematurely from childcare leave
9. Provision of financial allowance for the full childcare cost
10. Establishment of nursery schools on company premises
11. Organization of periodic information sessions about the Company’s childcare leave program aimed at male employees



Currently, the Company is continuing its efforts by formulating the “Eighth Action Plan”.

The Eighth Action Plan (June 1, 2022 - May 31, 2025) is available at [Released on June 2, 2022]

https://www.dmgmori.co.jp/corporate/recruit/worklifebalance/pdf/worklife_20220601.pdf

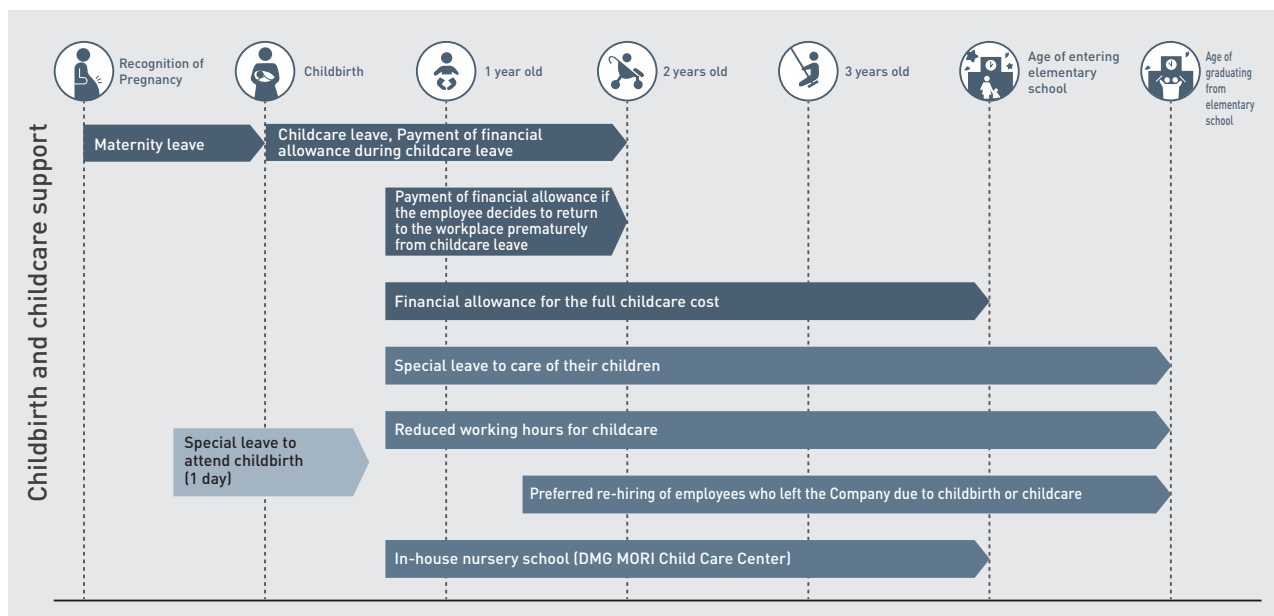
Enhancing employee benefits related to childbirth and childcare

DMG MORI Nursery School, a company-led nursery school, is permanently established at the Iga and Nara Campus, and is ready to accept a total of 100 preschool children. The nursery is available free of charge thanks to DMG MORI’s daycare subsidy allowance, and operates on national holidays in accordance with the Company’s work calendar.

From 2022, we introduced a new benefit program that allows employees to take paid leave in one-hour increments to accommodate various working styles. We will continue to listen to our employees and continue to develop a comfortable working environment.



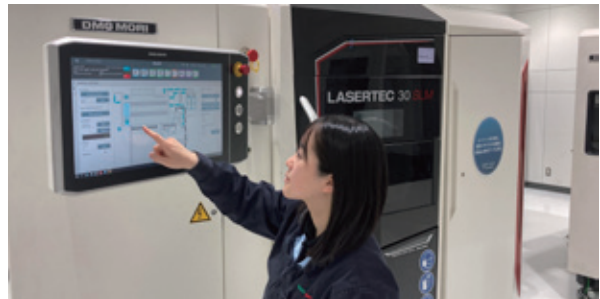
DMG MORI Child Care Center (Iga Campus)



Female empowerment

The Company has established actions plan to enable female employees to fully demonstrate their abilities in various fields. The percentage of female employees among all new graduate employees hired by DMG MORI CO., LTD. in 2022 was 17.4%. In addition, the Company has set a goal to encourage all employees to take 20 days of their paid leave, and in 2022, the average number of paid leave reached 18.8 days.

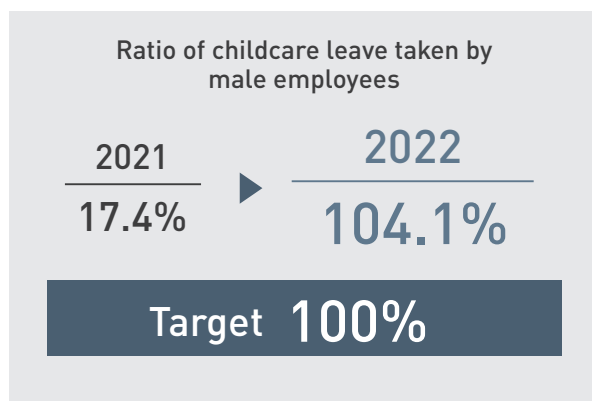
The Company is working to create an environment in which female employees can have sense of fulfillment and pride in their work. At DMG MORI, female engineers are active in domestic and overseas locations. Once a male-dominated workplace, the number of female engineers within the Company is steadily increasing, and the Company hopes that this will indirectly cause to increase the number of female operators at the customers' sites as well. In addition to female employees working as engineers, female employees in administrative positions are also active as professionals in their respective fields of expertise.



Encouraging male employees to take childcare leave

So that the employees can devote themselves to childcare with peace in mind, the Company has introduced a system under which employees who take childcare leave for 20 or more consecutive days receive the first 20 days as paid leave, starting in January 2020. Furthermore, in order to realize an environment where everyone can work comfortably regardless of gender, the Company believes that it is necessary to change the mindset of the entire workforce, including male employees. The Company actively encourages male employees to take childcare leave with the expectation that by doing so, male employees will take on the role of childcare, which has traditionally been regarded as the role of women. As a result of the Company changing the mindset of those in managerial roles and establishing support systems in the workplace, the number of male employees taking childcare leave has increased from 16 in 2021 (acquisition rate of 17.4%) to 77 in 2022, resulting in 100% of qualifying employees utilizing the system. The feedback from male employees who have taken childcare leave is positive, saying that the way they interact with their colleagues and the way they approach their work has changed.

In order to further accelerate the transformation of the entire company and the mindset of individual employees, the Company has set a goal of maintaining a 100% childcare leave utilization rate among eligible male employees in its medium-term business plan.



Calculation is based on criteria set by Kurumin
 Number of male employees who started childcare leave during the fiscal year /
 Number of employees whose spouses gave birth to a child during the fiscal year

* Japan-based employees

Support for customers' operator training

Establishing DMG MORI Academies in various locations in Japan

The Company intends to establish DMG MORI Academy in five cities in Japan, Hamamatsu, Kanazawa, Sendai, Okayama, and Fukuoka (location to be determined), by 2025 to support the training of young engineers. Each academy will be equipped with several DMG MORI machine tools, such as DMU 50 3rd Generation, a 5-axis machine and, NTX 1000 2nd Generation, a mill-turn center, TULIP, a digital transformation tool, and a 3D measuring equipment, which will be used for private lessons to customers.

With DMG MORI Academy opening at various locations in Japan, customers will have the opportunity to touch DMG MORI products at their nearest location at their convenience. The Company is convinced that it can maximize the learning experience of customers' operators by combining online classes on DMG MORI Digital Academy, and practical machining training at one of its DMG MORI Academy locations.



5-Axis Machining Association



In 2018, the Company lent out 70 units of DMU 50, a standard 5-axis machine, to 70 customers throughout Japan as part of its 70th anniversary project. 5-axis machines are capable of machining complex shapes with high precision, but on the other hand, they require a high level of skill and experience to operate, such as unique programming. As a result, the penetration rate of 5-axis machines in Japan remained low compared to those in other countries. Therefore, the Company formed a "5-Axis Machining Association" and took measures to promote 5-axis machining technology, by dispatching its engineers twice a month to the companies to which it loaned DMU 50, holding private lessons to which customers around the area were invited as well, and offering a total of 1,161 lessons to its customers' operators. In 2021, in response to the positive feedback from customers to these activities, the Company redefined the "5-Axis Machining Association" as an organization that aims at fostering communication among member companies and advancement of 5-axis machining technology. The new organization has been conducting activities such as hosting biannual general meetings, publishing newsletters, holding technical seminars by DMG MORI engineers, and organizing a contest in which the member companies showcase their 5-axis machining skills. As of the end of 2022, there are 140 member companies and organizations. Through these activities, the "5-Axis Machining Association" helps customers recruit and train operators as well as provides a forum for member companies and organizations to interact and exchange information, thereby expanding business opportunities for customers and stabilizing their operations.



Dialogue at the general meeting



DMU 50 maintenance training



Newsletter

Training of in-house engineers

DMG MORI Academy

DMG MORI Academy was established to enhance the professional skills, management capabilities, and international mindset of employees. In addition to a total of three locations in Japan (Iga Campus, DMG MORI's largest production site in the world, Tokyo GHQ, and Nagoya), there are facilities in Chicago, U.S.A., and Stuttgart, Germany, which function as regional hubs to support the continuous improvement of service and application engineers' skills.

Furthermore, DMG MORI Academy will open new locations in Japan through 2025 with the aim of not only serving as training facilities for customers' operators, but also as a place for in-house application engineers based in various regions of Japan to practice machining techniques.



Repair and restoration skills training center

In 2021, the Company opened the "Repair and Restoration Skills Training Center" on Iga Campus. This center is the Mecca of approximately 2,000 service engineers worldwide, and is devoted to generate highly-skilled engineers who can handle all-round repairs for all machine models, automation solutions, digital solutions, and so on. Service engineers not only from Japan but also from Asia and other countries around the world receive training here on a regular basis to improve the skills of engineers.

As demand for 5-axis machines, mill-turn centers, and automation systems increases, service engineers are required to have higher skills. The Company intends to increase the number of service engineers who can respond quickly, properly, and safely to the customers' service requests by utilizing more than 40 units of machines, including 5-axis machines, mill-turn centers and automation systems, which are permanently installed for training purposes.



Machining measurement skills training center

The Company offers machining measurement training programs for both customers and junior DMG MORI engineers. As for the internal training, our junior engineers spend 18 full months at the training center, away from their normal job duties, and learn how to operate mill-turn centers and 5-axis machines. By increasing the number of in-house experts, the Company will be able to meet increasingly complex machining needs in the future as well.



M&A History and Its Effects

The current DMG MORI group was formed in 2015 through the integration of the former Mori Seiki Co., Ltd. and GILDEMEISTER AG ("DMG") of Germany.

Even before this integration, the Company has been actively acquiring technologies and know-how through corporate acquisitions and business takeovers, which led to its growth in business.

This section looks back at the major mergers and acquisitions to date and their effects.

TAIYO KOKI

TAIYO KOKI CO., LTD.
becomes a group company

- By having TAIYO KOKI, which developed the industry's first vertical grinding machine, as part of the group, TAIYO KOKI became a metal machining manufacturer with a full lineup that covers everything from cutting to grinding.
- TAIYO KOKI is listed in the JASDAQ Securities Exchange in December 2007. (Since April 2022, TAIYO KOKI is listing on the Tokyo Stock Exchange Standard Market)

MORI SEIKI
THE MACHINE TOOL COMPANY

DMG MORI

DIGITAL

Acquisition of DMG MORI Digital Co., LTD.
(formerly known as DMG MORI B.U.G. CO., LTD.)

- DMG MORI Digital contributed to the development of CELOS, an operation software for machine tools
- DMG MORI Digital's software technology led to *my*DMG MORI and other technologies which enables IoT to date

Business succession of Hitachi Seiki Co., Ltd.
(Japan)

- By taking over the business of Hitachi Seiki in Japan, which had strengths in mill-turn centers, the Company strengthened its product lineup
- The Company, which originated in Kansai, and has its business focus in western Japan, expanded its presence in eastern Japan
- Hitachi Seiki's mill-turn technologies have been inherited by Iga Campus

1948

2001

2002

2007

Acquisition of DIXI machines S.A. (Switzerland)

- The Company gained access to the world's well-known customers with the DIXI brand
- The Company obtained high-precision, high-rigidity technology including scraping technology
- The Company accumulated overseas production know-how as its first overseas production site
- DIXI machine's technology was inherited by Pfronten factory in Germany, after the closure of the DIXI factory in Switzerland in 2016.

GILDEMEISTER (DMG)

1870

1994

2001

Acquisition of majority shares in SAUER GmbH & Co.

- GILDEMEISTER AG (DMG) acquires ULTRASONIC technology

1920 Maho

1913 Deckel

Business asset and know-how transfer from Deckel Maho AG to GILDEMEISTER AG

The Company is able to supply sensing parts and devices necessary for the manufacturing of semiconductor (pre-process) to the utilization of semiconductor (post-process).

Magnescale

Establishment of Magnescale CO., LTD. through taking over business from the current Sony Group Corporation

- The Company acquired measuring equipment technology such as scales and sensors, which are essential parts of semiconductor production equipment as well as machine tools.
- Magnescale's ultra-precision measurement technology enables the Company to realize ultra-high precision machine tools.

SAKI

Consolidation of Saki Corporation

- The Company acquires technology related to in-line automated inspection systems for mounting circuit boards and semiconductors.
- Saki Corporation's technology enables the company to expand its customer base in the field of next-generation communication systems and EVs
- The Company realizes "defect-free" smart factories



Transfer of small-size turning center business from AMADA CO., LTD.

- The Group adds small-size turning centers into its product portfolio
- The Group starts offering WASINO brand products, featuring the ultrahigh precision flat tooling turning center, "G Series"

Consolidation of DMG MORI CASTECH CO., LTD. (formerly Watanabe Steel Works)

- DMG MORI CASTECH enables the Group to realize in-house production of castings used for machine tool beds and columns, stabilize its supply, and improve its quality
- DMG MORI CASTECH switches to an electric furnace, and thereby reducing the CO₂ emissions of the Group

2008

2009 2010

2013

2015 2016

2020

Start of Business Collaboration

Unification of Company Names

Full management integration

Consolidation

DMG MORI

- ✓ "Global One" machine tool manufacturer
- ✓ One-stop solution for customers' issues
- ✓ A unique corporate culture which comprises elements of Japan, Europe and the United States

Medium to Long term Business Strategies of Group Companies

Magnescale

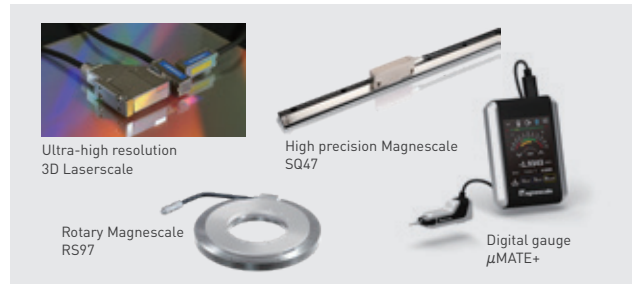
Magnescale CO., LTD.

45 Suzukawa, Isehara City, Kanagawa, Japan
<https://www.magnescale.com/en/>

Contributing to higher accuracy of manufacturing and measuring equipment with magnetic and optical precision position detection technology

Magnescale CO., LTD. has been providing high-precision position detection systems based on magnetic and laser light detection principles to the machine tool and industrial machinery fields for more than half a century. “Magnescale”, which is also the name of the company, is a product that takes advantage of the features of magnetism to demonstrate reliability even in harsh environments such as metal cutting. “Laserscale” has achieved the world’s highest resolution of 2.1 picometers, contributing to the quality improvement of cutting-edge semiconductor production equipment and ultra-precision machine tools. “Digital Gauge,” which is an application of high-precision position detection systems, supports measuring that occurs in manufacturing and assembly processes with digital technology. The company is also accredited as a

calibration service provider for length and angles under JCSS (Japan Calibration Service System = measurement traceability), and provides traceable products in compliance with Japanese standards. The demand for ultra-high precision in machine tools and semiconductor production equipment is increasing, and the demand for Magnescale and Laserscale is growing rapidly. At the same time, since the number of companies that can provide high-precision scales is limited, customers are demanding a stable and sustainable supply system. In order to expand supply capacity and ensure a stable supply, the company has decided to establish a new factory in Nara, where DMG MORI CO., LTD. was founded. By increasing its supply capacity, the company intends to cultivate new customers and aim for further growth in sales revenue and profits.



TAIYO KOKI

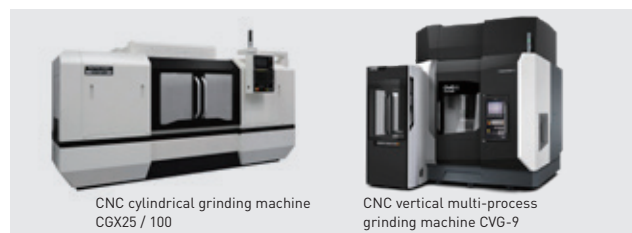
TAIYO KOKI CO., LTD.

221-35, Seiryō-machi, Nagaoka City, Niigata, Japan
<https://www.taiyokoki.com/en/>

Fulfilling customers’ needs through customization An all-round manufacturer of grinding machines

TAIYO KOKI CO., LTD. is a specialized manufacturer of grinding machines that has developed vertical grinding machines with outstanding creativity and technology. Grinding machines, which are responsible for the final process of metal machining, require the highest precision among machine tools. The company has a flexible R&D system in place to realize the needs of its customers. Founded in 1986, the company became a member of the DMG MORI group in 2001 and was listed on the JASDAQ Securities Exchange in 2007. Currently, this listing has moved to the Tokyo Stock Exchange Standard Market. As the markets for semiconductor production equipment, wind power generation and other new energy fields, medical-related products, and electric vehicles expand, so does the demand for higher-precision components. The company’s brand recognition is increasing in overseas markets as well,

and its overseas order intake ratio has exceeded 30%. Against this backdrop, the company expects demand for its grinding machines to further increase and has decided to build a new headquarters and factory (as disclosed on October 26, 2022). TAIYO KOKI CO., LTD. will have approximately twice the assembly production capacity of the current headquarters and factory upon the completion of the new factory. In addition, the precision assembly room and precision measurement room will be expanded to promote the development and manufacture of high precision grinding machines. In fiscal year 2019, the company achieved sales revenue of JPY 10 billion for the first time since its establishment. With the expansion of production capacity at the new headquarters and factory, the company aims to achieve sales of JPY 20 billion by 2030, and will strive to expand earnings and increase corporate value.



Contributing to improvement of manufacturing quality through automatic inspection equipment for electronic component mounting processes

Saki Corporation develops, manufactures, and sells in-line automatic inspection systems for electronic modules such as mounting boards and power semiconductors. In the field of electronics, where technological innovations are remarkable, such as automobiles, airplanes, smart phones, personal computers, and the base stations and data servers that support these communications, various technologies are connected by networks to build the infrastructure of today's digital society. Electronic modules, which are the heart of all of these products, support the digital society by becoming the quality of the infrastructure itself, and are therefore required to be highly reliable and safe, and automated quality inspection in high-

density mounting processes and semiconductor back-end processes is becoming increasingly necessary. The company is contributing to the realization of "defect-free" smart factories with its total lineup of state-of-the-art optical and X-ray 3D imaging and measurement technologies, and AI-based high-speed, high-precision quality inspections. Furthermore, in response to rapidly changing market needs, the company has begun offering an evolutionary inspection system with a variety of optional functions and excellent scalability. Saki Corporation will continue to expand its business by contributing to solving environmental issues with sustainable automated inspection solutions that evolve together with our customers' factories.



SMT line consisting of mounting and inspection machines



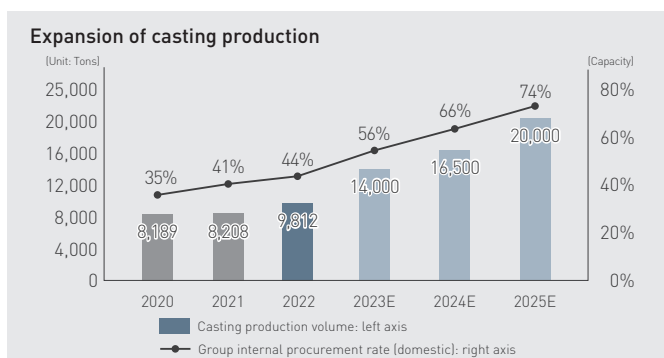
Inline automated inspection system

DMG MORI CASTECH CO., LTD. (Formerly Watanabe Steel Works)

Offering stable supply of ecological, high-quality casting products

DMG MORI CASTECH CO., LTD. produces castings for beds and columns of machine tools. Castings are critical parts that determine the accuracy, rigidity, and durability of machine tools, and it is important to ensure high quality and stable procurement. In addition, the production and procurement of castings contribute largely to our carbon footprint, so it is necessary to take measures to address this issue. To solve it, the company is rebuilding its headquarters with the aim of replacing production equipment as well as expanding production capacity. Casting production capacity was less than 10,000 tons per year in 2022, but will increase to about 20,000 tons per year in 2025. The company currently delivers a little more than 40% of the amount used in DMG MORI's production sites in

Japan, and intends to increase this ratio to about 74% by 2025. With the construction of the new factory, we will switch from the conventional coke oven to the electric furnace. The new electric furnace will use CO₂-free electricity and renewable energy. DMG MORI CASTECH's carbon footprint will be reduced from 6,665 tons per year in 2020 to about 140 tons per year in 2025 (down 98% from 2020). In this way, DMG MORI CASTECH will contribute to the stable supply of casting for DMG MORI's production in Japan by increasing the production of castings, which are the main parts of machine tools, and will strive to protect environment by reducing CO₂ emissions through the introduction of new facilities.



DMG MORI

DIGITAL

DMG MORI Digital Co., LTD. (Formerly DMG MORI B.U.G. CO., LTD.)

1-14 Techno-park 1-chome,
Shimonoporo, Atsubetsu-ku,
Sapporo, Hokkaido, Japan
<https://www.bug.co.jp/index.html>

Contribute to the promotion of MX through the development of IT solutions

DMG MORI Digital Co., LTD. was established in Sapporo, Japan in 1980 as an IT venture "B.U.G. CO., LTD." originating from Hokkaido University. The company has been developing cutting-edge computer-related technology based on its advanced hardware and software technologies. It became a group company of DMG MORI CO., LTD. and has been involved in the development of user-friendly and competitive next-generation operation software such as CELOS and MAPPS. "CELOS DYNAMICpost," which is a PC-based software developed by DMG MORI Digital, can integrate three functions into a single software package: post processor, cutting simulation, and cutting force optimization. As a result, customers can greatly reduce the time from program creation to the start of

machining. Furthermore, by eliminating the need for test cutting on an actual machine with its digital simulation capability, the software allows customers to reduce power consumption. The company also focuses its resources on developing connectivity functions, and provide solutions so that customers can improve their productivity and conduct adequate preventive maintenance by monitoring machine operation information. DMG MORI's idea of "Machining Transformation" (MX) is to make the machining process leaner through process integration and automation, and to improve the entire process by utilizing cutting-edge technologies such as IoT and AI. DMG MORI Digital will contribute to the promotion of MX through the development of IT solutions.



TECHNIUM TECHNIUM CO., LTD.

DMG MORI Tokyo Digital Innovation Center, 3-1-4 Edagawa
Koto-ku, Tokyo, Japan
<https://www.technium.net/>

Offering long-term support for installed machines through digital services

In 2018, TECHNIUM CO., LTD. was established as a joint venture between DMG MORI CO., LTD. and Nomura Research Institute, Ltd. The company provides digital services to help customers improve productivity, reduce costs, and educate operators throughout the lifecycle of machine tools. The company's membership portal "my DMG MORI" was launched in 2019, initially offering customers easy access to manage information such as machines' serial numbers, delivery dates, warranty expiration dates, basic information manuals, and history of on-site service, or spare parts information. New functions have been gradually added, and new communication options have been realized, such as making

online service requests, or attending e-learning courses for machine operation. In 2022, two new services, "Parts Selector" and "Chatbot," were launched. These services contribute to improved productivity by reducing the time customers spend on inquiries and waiting for responses. In addition to my DMG MORI, the e-commerce business, including the CELOS Club business, CAM business, and digital parts business, is steadily expanding.





DMG MORI Tokyo Digital Innovation Center, 3-1-4 Edagawa
Koto-ku, Tokyo, Japan
<https://tprj.co.jp/>

Promoting the low-code platform “TULIP” to realize digital transformation on the shop floor

Since its establishment in September 2020, T Project CO., LTD. has been providing sales and services in Japan for TULIP, a cloud-based application creation platform for manufacturing support developed by Tulip Interfaces, Inc. in the United States. Since TULIP is a low-code application, it can be developed and operated without outsourcing the task to an IT engineer, and it is easy to link with production equipment, external systems or and services, allowing the shop floor employees to work efficiently and improve quality. DMG MORI has already introduced the platform at its production sites on a global basis, which has led to improved productivity and

quality. TULIP is an application development platform for the manufacturing industry, but its use is expanding dramatically since it requires a minimal training time and excels in report creation and traceability. In August 2022, the company opened the Tulip Experience Center (“TEC”) at the Tokyo Digital Innovation Center to promote the use of TULIP by providing customers with hands-on experience to understand its ease of use and effectiveness. Companies that have once introduced TULIP are expanding its applications and repeat orders from the same companies are also contributing to expanding the company’s business.



13-15 Sakuragaoka-cho, Shibuya-ku, Tokyo, Japan
<https://walc.co.jp/>

Exploration future technology — a newly established company to provide software services

Following its establishment on April 1, 2022, WALC Inc. held its opening ceremony in Shibuya, Tokyo on July 15, 2022. The company succeeds the “Emerging Technologies Laboratory,” which was launched in 2017 as a place to develop employees to lead the digital revolution in the manufacturing industry, and inherits its predecessor’s goal of providing software products that will promote digital transformation. “WALC” means “Waltz” in Polish, and its mission is to develop human resources who are proficient in the three key areas of AI, Internet of Things (“IoT”), and cloud computing. The company has developed and sold “BR Controller,” which enables

automatic operation and high precision gripping of automated guided vehicles, “WALC CARE,” which is a health monitoring service that performs predictive maintenance for machine tools, “WALC VISION,” which inspects board and appearance with automatic image recognition technology, “WALC EYE,” which analyzes people’s movements or on-machine status, and “WALC COMPREHEND,” which extracts certain knowledge from text data. In addition, the company also recruits IT engineers and actively accept internships, thereby finding, developing and supporting top talents of the field.

