DMG MORI

COMPANY LIMITED



Key Figures

DMG MORI Group adopts IFRS since fiscal year 2015 to improve international comparability of financial information in the capital market, and to consolidate accounting policy throughout the group.

| | In 100 million JPY | | | In million EUR | | | | |
|--|--------------------|-------|--------|-------------------|-------|-------|--------|--------------|
| | 2017 | 2016 | Change | s Changes in % | 2017 | 2016 | Change | changes in % |
| Order intake | 4,483 | 3,670 | 813 | 22% | 3,539 | 3,050 | 520 | 17% |
| Sales revenue | 4,297 | 3,766 | 531 | 14% | 3,391 | 3,131 | 260 | 8% |
| Operating profit / EBIT | 294 | 20 | 274 | 14.7 times | 232 | 16 | 216 | 14.5 times |
| (Operating profit margin) | 6.8% | 0.5% | | | 6.8% | 0.5% | | |
| Profit before taxes / EBT | 248 | -11 | 259 | - | 196 | -9 | 205 | - |
| Net profit | 157 | -57 | 214 | - | 124 | -48 | 172 | _ |
| Net profit attributable to the owners of the company | 153 | -78 | 231 | - | 120 | -65 | 186 | - |
| Cash flow from operating activity | 314 | 182 | 132 | | 248 | 152 | 96 | |
| Cash flow from investment activity | -14 | -100 | 86 | | -11 | -83 | 72 | |
| Free cash flow | 300 | 82 | 218 | | 237 | 68 | 169 | |
| | | | | | | | | |

January – December 2016: 1 EUR = 120.3 JPY (average rate for the period) January – December 2017: 1 EUR = 126.7 JPY (average rate for the period)

| | 2017 | 2016 | Changes |
|-----------|--------|--------|---------|
| Employees | 12.375 | 12.307 | 68 |

*Employees at the end of each period

Financial Calendar

DMG MORI CO., LTD.

| 22 March 2018 | 70th Annual General Meeting of Shareholders |
|---------------------|--|
| 08 May 2018 | Release for the 1 st Quarter 2018 |
| 08 August 2018 | Release for the 2 nd Quarter 2018 |
| 07 November 2018 | Release for the 3 rd Quarter 2018 |

DMG MORI AKTIENGESELLSCHAFT

| 26 April 2018 | Release for the 1 st Quarter 2018 |
|--------------------|---|
| 04 May 2018 | 116 th Annual General Meeting of Shareholders |
| 26 July 2018 | Release for the 2 nd Quarter 2018 |
| 25 October 2018 | Release for the 3 rd Quarter 2018 |

Glossary

Below are additional explanations to some selected vocabulary in this annual report.

| Descriptions in the annual report | Explanations |
|-----------------------------------|--|
| DMG MORI DMG MORI Group | The entire DMG MORI Group consisting of DMG MORI CO., LTD, DMG MORI AKTIENGESELLSCHAFT, and other group companies |
| DMG MORI CO CO | DMG MORI CO., LTD. |
| DMG MORI AG AG | DMG MORI AKTIENGESELLSCHAFT |
| DPLTA | Domination, Profit and Loss Transfer Agreement (An agreement based on German law to enable DMG MORI CO., LTD. to give directions to the Board of Directors of DMG MORI AG. This agreement came into effect in August 2016.) |
| Additive Manufacturing | Laser metal deposition technology |
| DMQP | DMG MORI Qualified Product (Peripheral equipment certified by DMG MORI) |
| Technology Cycles | Technology Cycles are DMG MORI's solutions to make complex machining easy and fast by combining the following 4 elements: 1) machine tools, 2) Open innovation of cutting tools and peripheral equipment, 3) Embedded software, 4) HMI (Human Machine Interface) such as CELOS. |
| MATRIS | Module Automation Transfer Robot Intelligence System (MATRIS is a new robot system with modularized peripheral equipment to enable quick installation and set-up of systems and layout changes after installation.) |
| EMO 2017 | EMO HANNOVER 2017 (The world's largest machine tool exhibition held in Hannover, Germany in September 2017.) |

Reporting term

January 2017 – December 2017 Some contents include subjects that occurred outside of this term.

Disclaimer

This annual report contains targets, plans, etc. concerning the future of DMG MORI. All predictions concerning the future are judgments and assumptions based on information available to DMG MORI at the time of writing. There is a possibility that the actual future results may differ significantly from these forecasts, and described plans may not be implemented. There are many factors which contain elements of uncertainty or the possibility of fluctuation for a variety of reasons.

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As a global corporation continually striving to be the world's largest and most respected international manufacturer of turning centers, machining centers, multi-axis turning centers and advanced technologies.

----- From DMG MORI MISSION STATEMENT





To Our Shareholders

Message from the President



Dr. Eng. Masahiko Mori

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

Management analysis Overview:

In 2017, the first year after the integration, we started to see the successful outcome of efforts we made in advanced machine development and quality improvement. In addition, total engineering business, in which we combine optimal peripherals and software upon system sales and installation, bore fruit as a core management initiative. It helped us expand the market share worldwide. We also launched an IoT platform ADAMOS, which will play an intermediary role among different kinds of network protocol, for Industrie4.0/IoT to help machine tool users boost their productivity. SDGs (Sustainable Development Goals) is another important topic for us, and we are adjusting ourselves in accordance with the economic, social and industrial environment. As part of the approach, we increased the consumption ratio of paid holidays by our employees, reduced overtime and further expanded education programs for employees. We believe that the management foundation to create mid-to-long term value is successfully cultivated.

Review of 2017:

Our products' quality was further improved by minimizing variance in machining accuracy and other methods, precedently with advanced machines like 5-axis machines, mill-turn centers and Additive Manufacturing machines. We have also enhanced the range of DMQP (DMG MORI Qualified Product), and Technology Cycles. As a result, we established the position as a leading innovation company in the machine tools industry that provides optimal systems and valueadding after-sales services for each customer.

Additionally in our efforts to strengthen Industrie4.0/ IoT, we have launched the IoT platform "ADAMOS", together with leading European companies in software, engineering, and measuring equipment. Various machine tools and peripheral devices such as measuring equipment at customers' plants can be easily connected through ADAMOS, which enables centralized management of information. It contributes to productivity improvement and downtime elimination by failure diagnosis (predictive maintenance). The platform is highly compatible with other platforms, such as FANUC's "FIELD System" and Siemens's "MindSphere."

On the sales front, in our attempt to raise customers' experience, we introduced machining methods by industry and by workpiece type, as well as automation systems, at various exhibitions. In particular at the EMO show, the world's largest machine tool trade fair held in Hannover, Germany in September last year, we received the record-high orders for a single month. In November, we opened the Shanghai Technology Center with turnkey exhibitions, DMG MORI Academy and spare parts bases to strengthen solution proposal and service provision functions for customers in China and the neighboring countries.

In the meantime, our company is working on employee trainings, promotion of paid vacation, overtime elimination and development of in-house childcare center. For employee trainings, we enhanced TQM (Total Quality Management) activity, OJT (On the Job Training) and other curriculum. We also established the Emerging Technologies Laboratory, for further promotion of Industrie4.0/IoT and AI (Artificial Intelligence) to address technological development in ten to twenty years and more. As for annual paid vacation, we succeeded in consuming all allocated holidays. However, we exceeded the target of 2,000 total working hours per year by 26 hours due to an increase in production workload caused by higher order intake. We will continue working on improving productivity of our employees while increasing average salaries and wages.

As a result of the measures mentioned above, order intake increased by 22% from the previous year to a record-high JPY 448.3bn. Market share has improved in all regions. Sales revenue increased by 14% year-onyear to JPY 429.7bn, operating profit was JPY 29.4bn, and net profit attributable to the owner of the parent company was JPY 15.3bn (loss of JPY 7.8bn in the previous fiscal year due to disposal of redundant assets). On the financial front, the net debt balance at the end of the period (balance of interest-bearing debt, less, shortterm financial assets) was reduced to JPY 105.7bn (JPY 130.8bn at the end of the previous fiscal year) due to timely collection of trade receivables, strict inventory management, and collection of advance payment.

With the improvement of profitability and ability to generate cash flow, we raised our annual dividend per share to be 40 yen, including the commemorative dividend of 10 yen for our 70th anniversary.

Future Priority Initiatives:

We will continuously and efficiently catch up with the changes in society, such as shift to EV (electric vehicle), development in Al(artificial intelligence) and aging society.

The EV trend in the automobile industry will raise demand for machine tools and other equipment, as it requires new parts such as motors and batteries, as well as new processing methods for diversified material. Al shift will increase semiconductor demand, and the semiconductor production equipment needs processing facility for ultra-precision parts. Aging society will bring about changes in the facility environment, including automation of material handling. It also leads to an increased demand for medical parts production such as knee and hip joint socket, bone screw and implant. We believe that these structural changes will support the expansion of machine tools and the peripheral equipment market. However, the mere extension of conventional technology might not be enough to cope with the changes in materials and processing methods. From now on, only innovative companies can survive and provide customers with continuously improved value. In addition to multi-axis machines and mill-turn centers, we have also pioneered the industry in laser machines, ultrasonic machines, Additive Manufacturing etc. We have successfully proposed processing methods for complicated workpieces and wide variety of materials. Automation accounts for more than 20% of total order intake.

In the fiscal year 2018, we will gradually expand the application of in-house SmartSCALE to our products in pursuit of higher machine precision than our competitors'. In addition, we extended the warranty period of the spindle MASTER series from 2 years to 3 years to enhance customer satisfaction for after-sales service.

As a leading innovation company in the industry, we are putting efforts in SDGs (Sustainable Development Goals) to meet the expectations of a wide range of stakeholders. As an immediate task, we further strengthened export control function in relation to the Foreign Exchange and Foreign Trade Control Law in Japan. In industrial development front, we are financially supporting research and human resource development through the Mori Manufacturing Research and Technology Foundation. With our motto "Play hard, Study hard, Work hard", we continue to encourage our employees to take full paid vacation and work less than 2,000 hours per year. We further enhanced our in-house childcare system starting in April 2018 as well as our training system.

Through the above mentioned actions, we will strive to continuously enhance corporate value.

Message from CEO of DMG MORI AG



Christian Thönes DMG MORI AKTIENGESELLSCHAFT Chairman of the Executive Board

DMG MORI has the power to dynamically shape the future.

In financial year 2017 the high demand for our innovative machines and technology solutions continued. Order intake, sales revenues and free cash flow achieved record levels. Earnings also increased significantly. The order intake of AG increased by +16% to € 2,754.8 million (previous year: € 2,369.9 million). We thus achieved the highest order intake in the AG's 147-year history to date. Adjusted for the effects of the realignment in 2016 – such as, among other things, the changed sales and service structure in Asia and America – our order intake even increased by +23%. The global consumption of machine tools rose by +4.5%. Sales revenues also reached a new record high: Over the whole year, sales revenues went up by +4% to € 2,348.5 million (previous year: € 2,265.7 million).

Adjusted for the effects of the realignment, sales revenues increased even by +9% compared to the previous year. We also further improved on our results: EBITDA increased by +49% to \notin 252.9 million (previous year: \notin 169.7 million). EBIT increased by +73% to \notin 180.1 million (previous year: \notin 104.0 million) and EBT rose by +87% to \notin 176.4 million (previous year: \notin 94.1 million).

As of 31 December 2017, we reported EAT of \in 118.4 million – a growth of +149% (previous year: \in 47.5 million). In addition to the good results of operations, our financial situation also developed positively: Free cash flow rose by \in 99.9 million to a record high of \in 142.4 million (previous year: \in 42.5 million).

On the one hand, while we achieved record figures for significant performance indicators, we actively pushed forward important future topics: Automation, Digitization, Additive Manufacturing, Technology Excellence as well as DMG MORI Qualified Product (DMQP). Along with these five strategic future topics, in 2018 we are focusing more strongly on the optimization of quality and service. Now more than ever, DMG MORI aims at quality without compromise. For this aim, we are driving our "First Quality" offensive forward with numerous measures. For example, since January 2018 we have been offering a 36-month warranty period for all motor spindles of the "MASTER" series, without any restriction on hours. With our "Customer First" program we are striving for an increase of service satisfaction of our customers. As a worldwide leading manufacturer of machine tools, we also want to become the service champion for our customers – with excellence.

All our dynamic excellence would be impossible without DMG MORI's most important pillar: our employees. They are the face of DMG MORI and the interface to our customers. Only thanks to their engagement, expertise and strengths are we able to implement our objective to provide premium products and our ambitious goals. Innovative power, dynamics and excellence: That is the DNA of DMG MORI. Our highly qualified employees and strong partnerships keep us firmly on our success course.

For financial year 2018, we (AG) are planning around \notin 2.5 billion in order intake and around \notin 2.45 billion in sales revenues. EBIT is expected to amount to around \notin 180 million and free cash flow to around \notin 100 million. The current financial year will be marked by dynamics and excellence in technology, services and quality. We intend to dynamically promote our future topics and sustainably optimize our existing achievements. Therefore, our motto for 2018 is "Dynamic. Excellence".

CO's stake in AG: 76.1% (as of December 31, 2017) DMG MORI AKTIENGESELLSCHAFT HP https://ag.dmgmori.com/en/

Message from External Director



Tsuyoshi Nomura DMG MORI CO., LTD. External Director, Dr. Eng.

Enhanced governance with appointment of external directors

In June 2015, I took office as External Director of DMG MORI Co., Ltd., as one of the two External Directors DMG MORI assigned for the first time. In March 2017, when the two DMG MORI companies in Japan and Germany merged their businesses into one, the number of External Directors increased to 4.Together with 3 External Auditors, the Board of Directors now consists of 7 members from DMG MORI and another 7 members from outside. The composition of members of the Board -50% from DMG MORI and 50% from outside - reflects strengthened corporate governance of the company.

In my view, External Directors are expected to play their roles in the following two areas: 1) Monitoring of the management, and 2) Advising to the management. In both areas, the role of our External Directors is becoming increasingly deep and widespread. External Director Mr. Aoyama is Professor of Keio University. External Director Mr. Mitachi brings in his experiences at Boston Consulting Group, a global business consulting firm. External Director Mr. Nakajima led the Patent Office of Japan and worked at Sumitomo Electric. I assumed leading roles at Mitsubishi Heavy Industries and Panasonic. External Auditor Mr. Kato comes from Toyota. External Auditor Mr. Kimoto introduces his experiences at SMBC and Olympus. External Auditor Mr. Tsuchiya provides valuable inputs from his career at Denso. Indeed, DMG MORI's External Directors and External Auditors have experiences at Japan's excellent companies representing a wide range of industries and functions. Compared to other companies, DMG MORI's External Directors and External Auditors are making increasingly powerful contributions as a monitoring and advising body to the management of DMG MORI.

DMG MORI's strengths and future challenges

DMG MORI's strengths derive from the fact that it has grown to the No.1 company in the machine tool industry worldwide, which lead to the following strengths: 1) Attractive workplace for outstanding and diverse talents, 2) Enhanced product lineup, 3) Enhanced capability of product development, 4) Geographical diversification of sales and production locations, 5) Advantages in the access to market information (market trend, machining and control technologies, software), 6) Stronger purchasing power in the supply chain, 7) Cost reduction by usage of common components throughout the group, 8) Advantage in financing and investment, and 9) Stronger branding and sales force. Moreover, DMG MORI represents unique advantages which can be summarized as follows: A) Strong leadership of Dr. Mori, quick decision making, forward looking and strategic approach, as well as B) Strong driving force by uniting the power of all the employees. On the other hand, I would expect stronger commitment from employees and organizations of DMG MORI to fully exercise their potentials.

At the board meetings, members discuss proactively and intensively on a variety of issues to achieve further growth of DMG MORI by exercising their roles to provide monitoring of and advising to the management. In parallel, External Directors and External Auditors provide a lot of advices and suggestions to Operating Officers who report on areas they are responsible for. Such suggestions aim at enhancing the said strengths of DMG MORI even further, and to monitor the progress of business. Furthermore, External Directors and External Auditors take up every opportunity to visit DMG MORI's factories to better understand the company's operation outside of the board meetings; they observe the operation on-site and give practical advices and suggestions for improvement.

To overcome the challenge of DMG MORI by encouraging individuals and organizations for stronger commitment, the company launched TQM (Total Quality Management) activities. PDCA (Plan-Do-Check-Action) is a useful tool within this scheme. PDCA is not only helpful for the company's performance, but also for human resource development, such as skills development, visualization of the current skill level, and training. I am convinced that continuous implementation of the said efforts for an extended period of time will give great impacts on the growth of DMG MORI going forward.

The communication between the members of DMG MORI's management, External Directors, and External Auditors is open and candid. The management of DMG MORI implements what they discuss with External Directors and External Auditors after the board meetings in real business. This would be a strong driving force for the growth of DMG MORI.



BUSINESS SITUATION



Message from Executive Vice President (Administrative)



Hiroaki Tamai DMG MORI CO., LTD. Executive Vice President

Towards cultural integration with DMG MORI AG

We consider human resources as the most important management resources for innovation. We pursue effective talent management and investment, in line with organizational integration with DMG MORI AKTIENGESELLSCHAFT (hereinafter referred to as AG) and other group companies, flexible standardization and delegation of authorities.

Recent assignments of executives, including those of AG and other subsidiaries, have helped us convey the top management policy across the group. We will further explore and develop potential management staffs, both in DMG MORI Co., Ltd. (hereinafter referred to as CO) and AG.

Human resources development policy and risk management

One example of flexible standardization among the group is personnel training in the long-term perspective. Conventionally we have sent staffs hired and trained in Japanese headquarters or in German headquarters to the rest of the world, but we started to explore and cultivate local talents instead. We employ new graduates from high educational institutions in Asia and train them internally. The first batch of people already joined us in 2017 from China, India and Indonesia. We are recruiting from other parts of the world as well.

We also need partially decentralized management system and delegation of authorities, with a respect

to AG's autonomy, in order to manage more than 12,000 employees in the group in a speedy and efficient manner. The headquarters in Japan will handle personnel affairs and compensation of around 100 top management members of CO and AG, while the regional managements will manage around 500 middle-class managers and other staffs' transfer, employment and so on.

Among the most important challenges are recruiting and training of staffs who can catch up with the market transitions and help grow the business. This initiative is pioneered by in-house leadership training in the U.S. The training combines the internal and external know-how, drawing participants from Canada, Mexico, Brazil and Japan. It will be applied to wider range of attendees in the future.

On risk-management front, we are committed to maintain appropriate corporate governance system by detecting risks inside and outside the company, and eliminating and mitigating them. Staffs engaged in internal control systems, security trade control, legal affairs, intellectual properties and property/ casualty insurance keenly watch the risks in their responsibilities.

Internal auditors of CO and AG are working together on internal control reporting system over financial reporting, based on Financial Instruments and Exchange Act (J-SOX). The consolidated assessment is conducted by financial auditors before submitting to the regulatory bodies and reporting to the public.

As of security trade control, we follow the regulations of Japan, Germany and other exporting countries in acquiring permissions. The whole DMG MORI group is well aware of the importance of export control and pay close attention in their daily tasks.

CO and AG's legal departments cooperate closely in such areas as product liability and contract management.

We apply for patents and design rights for internally developed technologies, and trademark rights for brands and names to protect our intellectual property (IP). We also continuously investigate that of other companies to avoid infringement of IP.

With increasing risks inside and outside the company, each risk-managing department has to coordinate closely with the AG counterparts in developing and reinforcing the current processes and methods.

Message from Executive Vice President (Accounting / Finance)



Hirotake Kobayashi

Financial performance for FY2017

Fiscal year 2017 was the first year after full integration with DMG MORI AKTIENGESELLSCHAFT (hereinafter referred to as AG). We tried making best use of the global collaboration in sales, development, manufacturing and procurement, in order to achieve committed figures in sales revenue, profits, reduction of interest-bearing debt as well as other items in the consolidated financial statements.

The sales revenue was resulted in JPY 429.7bn., increased by JPY 53.1bn (+14.1%) from last year, operating profit in JPY 29.4bn., up by JPY 27.4bn.(Y-o-Y 14.7 times) and the net profit attributable to the owner of the parent company in JPY 15.3bn (in the previous year, loss of JPY 7.8bn due to the one-off items). We believe the results meet our shareholders' and investors' expectations for the initial year of full integration.

As of the financial position at the year end, the equity ratio ended up in 19.0%, improved by 1.0 per cent point from fiscal year 2016. The net debt balance, which is calculated by deducting short-term financial assets from the balance of interest-bearing debt, decreased by JPY 25.1bn from previous year to JPY 105.7bn.

Cash flow generated from operating activities in FY2017 reached to JPY 31.4bn, thanks to enhanced down payment collection, timely collection of accounts receivables and reduction of working capital by, for example, stricter inventory management, and so on. The cash flow from investing activities was negative of JPY 1.4bn

after netting receipt from sale of shares with the capital expenditure of JPY 9.4bn. As a result, the free cash flow for the year was JPY 30bn.

Future initiatives

The social and industrial structure is dramatically changing in mid-long term, with shift to EV, penetration of AI and aging of society. As CFO of the company, I am committed to provide healthy and solid financial foundation for the company to make necessary investments responsive to the ever-changing market and customers' needs, as well as to continuously enhance the company's value. Now that the fullyintegrated DMG MORI gained better profitability and cash flow generating capability, our annual free cash flow target is set at JPY 20bn or more in the coming years to reduce the net debt balance to less than JPY 50.0bn by the end of FY2020. We intend to attain these goals while balancing investments for growth and shareholder returns.

Minimizing financial risks and maximizing capital efficiency are also among my biggest challenges as a CFO, and we have introduced global cash management system to address them. It enables capital visualization, enhanced financial management and centralized control of foreign exchange risks.

Given the continuous favorable trend in machine tool's market in FY2018, we set the sales revenue target as JPY 450bn. (up by 4.7% from last year). With further synergy effects expected this year, we aim for JPY 35bn in operating profit (up by JPY 19.0% from last year), as well as JPY 20bn. for net profit attributable to the owner of the parent company (up by 30.7% from the last year). As for shareholder returns, annual dividend for FY2017 was 40 yen per share (14 yen plus from last year), including 10 yen per share as commemorative dividend for the company's 70-year anniversary. As a result, the dividend payout ratio was 34.4%. We are expecting annual dividend of 50 yen per share for FY2018. We will aim for well-planned and stable shareholder returns. With the basic financial policy to maintain and improve financial soundness, we will remain committed to stronger financial bases and improved company value. Fair and timely disclosure is also a key to establish better relationship with shareholders and investors through constructive conversation. Your continuous understanding and support are greatly appreciated.

Message from Executive director (Development / Quality)



Naoshi Takayama DMG MORI CO., LTD. Executive Director, Dr. Eng.

Total Solution Development

We observe significant changes in the market trend; climate change has ignited a shift to electric vehicles; aging society pushes up demand in the medical industry; AI (Artificial Intelligence) and IT technologies make our daily life more convenient and productive. On the other hand, we observe challenges our customers are facing at their production sites; lack of skilled engineers and operators; difficulty in hiring young people and transferring skills from elder to younger employees; speedy production of prototypes of new components arising from EV-shift, AI-shift, and aging society; flexible production of different kinds of components in variable volume.

In order to address these changes, DMG MORI will continue developing new technologies to improve performance and quality of our machine tools. In addition, we will release new products to cover the complete production processes from raw material to end product. Further, DMG MORI will offer system solutions to support customers to maximize the availability of their machines and equipment. Our goal is to become a total solution provider for our customers to improve the productivity of their factories as a whole.

Development Strategies in 2017 and 2018

In 2017, DMG MORI Co., Ltd. (CO) and DMG MORI AG (AG) released in total 15 new models. In parallel, we have been continuously reducing the number of models since 2009 when the collaboration started. We started reviewing more than 300 models of both companies in 2009, eliminated redundancies and less profitable models from our product lineup, and reached at 164

models by the end of 2017. In 2018, we plan to release 14 new models.

In addition to machines, we continuously develop and release Technology Cycles to make manufacturing much easier for customers.

For example, MVC (Machine Vibration Control) is a Technology Cycles to visualize the machine's and machining conditions by sensing technologies and to guide customers to the best-fitting cutting conditions with a help of AI; MPC (Machine Protection Control) is a Technology Cycles to detect machine's abnormal behaviors and to maximize machine's availability; we added more Technology Cycles in the last year to support machine operators by predictive maintenance and status monitoring.

At EMO 2017, one of the most renowned machine tool exhibitions held in September in Germany, DMG MORI released a new IoT platform "ADAMOS". ADAMOS makes it possible to connect customers' production equipment and DMG MORI's cloud through internet, and to facilitate centralized production control and optimized operation of customers' factories. After completing pilot tests at customers and performance evaluation, ADAMOS will become available in 2018.

DMG MORI's new robot module system "MATRIS" (Fig.1) will enter the market this year. MATRIS' module design makes it possible to shorten respons e time to customization requests by around 80%. With MATRIS, DMG MORI is aiming to increase the percentage of machines with automation solutions from today's 20% to 30% by 2020.

In the area of Additive Manufacturing, we enhanced our product lineup by introducing powder bed technology for higher precision in addition to powder nozzle technology for better deposition efficiency. The new enlarged product variations cover the spot size from less than 100 to 500 mm for deposition. In 2018, we will develop a new model with the spot size of more than 1m for deposition to meet a growing demand from medical and aerospace industries.

DMG MORI is leading the machine tool industry. As the No.1 in the market, we will focus on further development of elementary technologies to improve accuracy, cutting performance, reliability (durability), and energy efficiency of our machine tools.

3 years ago, we released speedMASTER, a new spindle series for machining centers jointly developed by AG and CO. This cutting-edge spindle brings spindle runout accuracy and torque performance to the next stage, contributing to even higher competitiveness of DMG MORI.

speedMASTER tripled the lifetime of conventional spindles and paved the way for extending the warranty period of spindle to 3 years from 2018 for the first time in the industry. Other new topics from Development include: attachment of smart scales with 10nm resolution as standard produced by Magnescale, a group company; release of μ -precision specification with 10 μ m/m volumetric accuracy; GREEN mode to save electricity consumption by 40%; new functions to control thermal displacement; development of a new operation panel CELOS with outstanding usability and functionality.

Challenges and Future Development Policies

The most critical challenge is to cultivate nextgeneration human resources, who have strong initiative to meet various requirements worldwide, and make optimal proposals to benefit each customer. As part of the efforts, we proactively assign younger employees to management positions to promote dynamic and flexible development environment. For better understanding of customers' point of view, we also visit customers' plants as often as possible to directly hear the voice of customers, on such issues as machine operation status, machine working environments and their issues and their requests to our products. In 2017, we received around 500 feedbacks through customers' visits and reflected them to the current or new models' designs.

One of corporate missions is to "Increase our customers' productivity and efficiency through our latest development in technology as manifested by our increasingly accurate and progressive manufacturing capabilities." We will stick to this approach and persistently explore new technology to address everchanging customers' challenges and needs.

(Fig.1) Structure of MATRIS (robot system)



Message from Executive director (Purchasing & logistics and production)



Kenji Oishi DMG MORI CO., LTD. Executive Director

Normalization of procurement and production, and beyond

In 2017, the first year after full integration of DMG MORI AG, we achieved solid advancement of development and production strategies. To give you some examples of global optimization, we integrated the platform of NLX series (designed by CO) and CTX series (designed by AG) and started mounting MASTER spindles made in Iga plant on machines produced in Europe as standard. Mutual supply of components and products between CO and AG is one of the strengths of DMG MORI and we will pursue this approach in 2018 and onwards.

The mission of the purchasing & logistics department is to procure necessary parts and materials in good "Quality" at appropriate "Cost" by on-time "Delivery" through optimal logistics method to enable smooth manufacturing by production department. In 2017, however, significant supply and demand gap emerged at some suppliers with oligopolistic global market position, causing difficulties for us to achieve our original production plans. Delivery delay occurred at some sheet metal suppliers, too. In 2018, we once again anticipate strong demand. We will strengthen alliance and joint negotiations with AG's purchasing department. Moreover, we will make ourselves more involved in productivity and quality improvement at outsourcing suppliers by dispatching experienced DMG MORI engineers to support them, just like we do to our own production department.

In 2017, production department worked hard to keep pace with strongly increasing order volume whose growth rate increased from one quarter to the next.

To enlarge production volume through productivity improvement, we introduced new machine tools of DMG MORI to reduce machining time, increased machine operation ratio of existing production machines and in particular, started restructuring of Iga Machining Plant. Additionally, we allocated human resources flexibly according to workload and reduced redundant inventory between work processes as much as possible. Nevertheless, the average production lead time from order to shipment extended from 4 to 5 months as usual to 4 to 7 months. To meet the continuously high demand in 2018, we are committed to normalize production lead time by taking additional measures for productivity improvement. For example, we will shift from cell production to line production for the most frequently ordered models. We will improve productivity by fixing the production calendar to 5 working days followed by 2 days-off and taking long holidays in April/ May, August and December/January. We will build the world's most sophisticated machining plant by 2020 by using DMG MORI's 5-axis and mill-turn machines, DMQP and Technology Cycles. In this new plant, where we are going to provide high value to our customers, accuracy of all the production machines and equipment must be constantly maintained or improved and all the machines, fixtures and tools need to be always neat and tidy to qualify as "Super2S" factory. The new machining plant should also be a place for TQM (Total Quality Management) activities and human resources development through education and training.

To consolidate our position as the leading innovation company in the global machine tool industry, we must timely produce and deliver excellent products that will meet customers' diversifying demands. Traditionally, manufacturing companies try to achieve high quality and productivity by developing products by their own technologies and producing them by themselves at their own factories. To fulfill customer's diversifying expectations, however, manufacturers need to pave the way for open innovations instead of sticking to own technology and own production sites and for combination of in-house manufacturing and outsourcing to optimize supply chain. The operations of purchasing & logistics and production departments must be linked closely with each other under integrated strategies. I will continue to lead both departments and consistently implement a variety of important actions described above.

Business environment

Outlook by industry

Automotive industry is expected to grow by 3.6% in 2018, exceeding 3.3% of 2017. ^{*1} More than half of the new vehicle sales will be SUVs due to a wide range of product segmentation from mid- to high-price models and consumers' preference for wide space and safety. Other factors would be commercialization of self-driving cars that will change the industry trend and demand increase of electric vehicles facilitated by some countries' environmental policies.

Expected growth rate of the aerospace market is about 4% in 2018, resulting from economic recovery and increased number of passengers. *² Airplane production will remain strong as high amount of order backlog at Boeing and Airbus exists. Many companies will develop new components made by new materials such as CFRP (Carbon Fiber Reinforced Plastics), and by new technologies such as Additive Manufacturing.

Semiconductor industry will remain positive in 2018 by exceeding the results of 2017. The memory segment will be especially positive due to increasing demand for IoT and mobile solutions. Gartner, an US-based IT advisory company, forecasts sales revenue of worldwide semiconductor market in 2018 as 451 billion USD, up by 7.5% year-on-year. Within the memory segment, capital investment in NAND will be higher than that of DRAM. ^{*3} Machinery and components will remain strong as a result of first-time or enlarged production transfer to India and South East Asia, and of investment in IoT and Industry 4.0 related equipment, etc.

- *1 BMI Research, 2018
- *2 Moody's, 2018 Outlook for the global transportation sector, 2017
- *3 Gartner, Forecast Analysis : Electronics and Semiconductors, 2017

Outlook of the machine tool industry

Oxford Economics and VDW (German Machine Tool Builders' Association) estimate the worldwide machine tool market volume of 73.2 billion Euro in 2018, exceeding 2017 results by 3.6%, following recovery of capital investment by manufacturing industry. Economic recovery at global level will boost investments in automotive, aerospace, industrial machinery, medical and other industries.

In North-, Central- and South Americas, machine tool market is expected to grow by 2.9% in 2018. Recovery of commodity price will help economies in Central America get back on track and US government's support for manufacturing industry will affect the market positively. Growth rate by country will be 3.1% in the United States, up from 3.0% in 2017, 4.4% in Brazil, and 1.8% in Mexico, respectively.

In Europe, economies of strong players in the manufacturing industry such as Italy and Germany will continue to grow and production volume in East Europe will increase, leading to a forecast of 4.1% growth in 2018. France will mark the highest growth rate, followed by Italy and Germany. UK, on the other hand, is estimated to shrink by about 3.1% due to Brexit decision discouraging new investment.

Growth rate of machine tool market in Asia will be 3.5% in 2018. In China, replacement of existing production equipment and the industrial policy to support advanced machinery will boost demand by 3.5%. 3.4% is the forecast for Japan, reflecting the ongoing positive trends in export of component and machinery. Indian government's economic reform will push the growth rate to 5.3%. Thailand, Indonesia, and other countries will benefit from production transfer by global manufacturing companies to avoid China risks, resulting in estimated 4 to 6% growth in 2018.

Today, we observe increasing demand for machining work pieces with complex geometry by using light and tough-to-cut materials. This is why we expect more demand for cutting tools to machine tough-to-cut materials such as titanium alloy and heat-resistant alloy that are increasingly used in automotive, aerospace, and medical industries. We also anticipate further demand for high-precision 5-axis machining centers.

At the same time, Additive Manufacturing technologies started to replace the conventional cutting technologies in the areas where small lot production is required for prototyping and customization, and where production processes are modernized. Annual growth rate of Additive Manufacturing with laser technology exceeds 40% in each of the past several years, with the market volume in 2016 being about 130 million USD.

BUSINESS SUMMARY

6



Machine tools involved in our life

Our daily lives consist of a variety of activities including eating, moving, communicating, and maintaining health. Machine tools are fundamental to successfully pursuing these activities and are found in virtually every facet of life today as we know it.

For example, moving requires automobiles which are composed of many parts that were directly produced using machine tools. Plastic bottles are an instance of such as they are manufacturing by injecting material into a mold that was created with machine tools.

Products often taken for granted in every day life may not seem to have a corollary to machine tools, but in fact are linked to machine tools in the production of the product. Evolution of machine tools makes our lives richer.



AC ball hub

Gear box housing

Wheel hub



Food



Garments



Information



Focus area

- Medical -

As a partner of virtually all large manufacturers of medical equipment, DMG MORI plays a decisive role in ensuring implants and instruments are machined efficiently and above all that they meet the high demands on quality. This includes the complete material mix, from high-strength plastic to stainless steel and titanium and on through to cobalt chrome and now biodegradable magnesium alloys. CNC solutions for 6-sided turn-milling, 5-axis simultaneous milling, ULTRASONIC technology and high-speed cutting are just as much a part of the portfolio as Additive Manufacturing and digital solutions for future-orientated processes in the medical technology sector.



The Pro-Flex prosthesis from Össur, who is one of DMG MORI products users, consists of carbon, titanium, steel and aluminum.



Helgi Sveinsson is the world record-holder in javelin in the Paralympics F42 classification. His prosthesis is made on DMG MORI machines.



- Aerospace -

Average annual growth rates of over seven percent make aerospace one of the global growth industries. However, this sustained increase is only one side of the coin for airlines. They must be profitable if they wish to remain competitive. They can achieve this among other things with more modern aircraft, which of course leads to a noticeable rise in demand for manufacturers. Traditionally America and Europe have a large share of the manufacture of aerospace products, but Asia is meanwhile gaining ground, with a 37 percent market share.

As a supplier of technology for aircraft manufacturers, DMG MORI has observed this development through its order intake.



Blisk

As an origin of social life

We have to machine materials to make products, and machines and tools are required for the machining process. A machine tool is a constant source of products and parts worldwide.

Precise products and parts created by a machine tool provide solid foundation for planes that can keep flying in severe conditions or cutting-edge communication equipment that emerges in the market one after another. The accuracy of machine tools significantly affects accuracy and quality of finished products. DMG MORI is committed to creating better products as an origin of our social life.



Every product has a unique life-cycle. In the general sense, products start with material extraction from natural resources, which are refined and then manufactured into a product. At each stage of the lifecycle, three components, machine tools, tooling, and materials, combine together to play the major role. Let's take a car as an example. Automotive parts are made by machining the material directly by machine tools, or they are changed to desired forms by using metallic molds made by machine tools. Machine tools are also necessary to make raw materials for parts. However much a car may evolve, the composition pattern will never change.

In other words, the machine tool will continue to be an integral part of our lives, no matter how far the times may go.

Consumers are always seeking products with the best quality. To meet demand for high quality, manufacturers must use very precise and accurate parts. Therefore, the machine tools that produce these parts must be of equally or greater quality. The accuracy of machine tools has a profound impact on manufactured product quality. Because a machine tool is capable of machining to the micron or sub-micron level, which is not visible to the human eye, it is able to produce components of extremely high precision.

DMG MORI serves the ever-increasing component accuracy requirements by taking full advantage of our accumulated technologies and expertise.

The state-of-the-art machines of DMG MORI can position their tools precisely to within three-thousandths of a millimeter as they process workpieces. Scarcely imaginable precision. But absolutely necessary. The ability to perfectly shape materials down to the tiniest detail is a prerequisite for the very existence of some products —in medical technology, for example, or the aerospace sector. Just as important is the ability to achieve the highest degree of accuracy not just once, but time and again. This is what defines quality.

Machine tools are in constant need



1 μm Responding to demand for higher accuracy —— Machine tool accuracy defines product accuracy

Best in class precision by DMG MORI

World's largest lineup with the advanced technologies of Japan and Germany

DMG MORI provides high-performance and high-efficiency machine tools. We offer a wide range of product lineup as a fruitful result of our tradition and knowledge accumulated since the foundation of the company, as well as continuous efforts and a bond of solidarity among our employees across the world. The world's largest lineup is available to respond to every customer's needs and requests.



After DMG MORI CO., LTD. (former Mori Seiki) started the production of machine tools in 1958, our differentiation strategy in domestic and overseas markets won us the reputation of "Mori Seiki, the master of lathes." DMG MORI AKTIENGESELLSCHAFT (former GILDEMEISTER) has also cultivated manufacturing technique of turning centers through its 150-year history. With a synergy of the two companies, the lathes with superior turning capability have now developed into high-rigidity, high-accuracy turning centers combined with milling ability brought by BMT (Built-in Motor Turret) and traveling axes, which enabled production of wide variety of workpieces.

Machining centers were born to perform various kinds of machining by changing rotary tools for facing, drilling, boring and tapping with an automatic tool changer. In 2016, we began selling the CMX V Series that can operate in collaboration with robots and automation systems. The models with a space-saving body offer some 290 options to meet diverse needs of customers. Origin of DMG MORI [Turning Centers]



Responding to needs of various fields [Machining Centers]



With 120-year development and manufacturing history in DECKEL MAHO AG, DMG MORI 5-axis machines feature outstanding milling performance and superior operability achieved by advanced technologies. As the machines are capable of multi-face indexing, machining can be completed in one clamp. It reduces setup times and simplifies / eliminates fixtures, contributing to a drastic reduction of process time. 5-axis machines use the turning axes to make tools approach workpieces at optimal angles, ensuring high-accuracy machining that no 3-axis / 4-axis machines have achieved. We released DMU 50 3rd Generation, a standard simultaneous 5-axis model in October 2017.

Multi-axis machines are able to complete the entire process of machining on a single machine without operators, which conventionally has been done with several machines. Superior machining performance by a combination of a turning center and a machining center drastically reduces production lead time, and efficiently integrates processes for various production types, from high-mix low-volume production to mass production, bringing great benefits to customers.

High-quality laser machines enable low-cost, high-efficiency simultaneous 5-axis machining of any types of metals and new materials. It delivers outstanding performance with Shape (laser structuring of geometrically defined surfaces, 3D laser ablation for intricate cavities, and engraving), FineCutting (machining of metal sheets, tubes, and 3D parts for watch and medical-related industries), PrecisionTool (manufacturing of tungsten carbide cutting insert molds, pressing, and PCD / CBN / CVD cutting inserts) and PowerDrill (drilling of turbine parts for aircraft engines and industrial gas turbines).

Ultrasonic machines are capable of machining advanced materials, which are generally considered difficult to cut, such as ceramic, glass, corundum, tungsten carbide and composite materials, into complex shapes in an efficient way. They reduce machining resistance by up to 40% compared with existing machines by overlapping ultrasonic vibration with the tool rotation and the travel in the Z-axis direction. This can prevent cracks of workpieces and expand tools' life-span.

Powder nozzle method

DMG MORI's original and innovative technology integrated the cutting-edge milling technology with Additive Manufacturing for the first time in the world. It sprays metal powder from the powder nozzle to deposit the layers, enabling high-speed forming of various materials.

Powder bed method

Metal powder is spread over a platform in layers, and a laser fuses the layers to create a targeted figure. This method is preferable for precise shaping of hard-to-cut and small workpieces, such as impellers and artificial crowns.

Changing the conventional wisdom of parts machining [5-axis Machines]



Integration of two cutting-edge technologies [Multi-axis Machines]



Fine machining [Laser Machines]

Machining of advanced materials [Ultrasonic Machines]

Innovative advanced technology [Additive Manufacturing]



History and achievements of business collaboration

In March 2009, DMG MORI Co., Ltd. (formerly, Mori Seiki Co., Ltd.) started business and capital collaboration with DMG MORI AG (formerly, Gildemeister AG), the world's largest machine tool builder at that time, through mutual shareholdings of 5 % each. DMG MORI AG had a massive presence especially in Europe based on its unique direct sales network and 5-axis machining centers. DMG MORI CO, on the other hand, had strength in mill-turn and horizontal machining centers in Japan, Americas, and South East Asia in particular. Both companies expected a great deal of benefit from business collaboration to expand customer bases and product lineup, to distribute production locations, and to exchange technology information. After 2 years of business collaboration, both parties became convinced of future success of business integration. At the same time, they enhanced capital collaboration by CO purchasing newly issued shares in AG.

In September 2013, CO's shareholding ratio in AG increased to 24.3%. To gain trust from customers, both companies agreed to use the common brand name "DMG MORI" for their products. They changed the company names, too, to DMG MORI CO and DMG MORI AG, respectively. Integration of global sales and service network was almost accomplished by the end of 2014. In January 2015, CO implemented a tender offer toward AG. In May 2015, CO increased the shareholding ratio in AG to 52.54% to form a consolidated group structure. Following approval from designated authorities in some

countries in relation to competition and anti-monopoly laws, both parties accelerated streamlining product lineup, usage of common design and components, optimization of supply chain network, etc. In April 2016, CO's shareholding ratio in AG reached 76.0%. In August 2016, both companies achieved full integration by concluding "Domination, Profit and Loss Transfer Agreement" (DPLTA). Following DPLTA, both companies further optimized their management resources by the end of 2016 through disposal of overlapping assets and withdrawal from non-core businesses.

2017 was the first year after full integration. Fruits of business integrations are clearly visible for example as better global coverage of customers, advancement in cutting-edge technology products such as 5-axis and mill-turn machining centers, enhanced system solutions by peripheral equipment and software, including Technology Cycles, and competitive advantage in service. As a result, DMG MORI increased its market share and achieved higher profitability in orders.

In Europe and North America, in particular, customers are making a quick shift to new machining technologies and new materials especially in Aerospace, Medical, Automotive (EV) and Die & Mold industries. Integration of both companies enables DMG MORI to suggest more machining solutions than any other company in the industry. DMG MORI will continue to create added value for its customers worldwide.



Grow with customers – A total solution provider

ed by DMG MORI based on VDW/ Oxford Economics data 2018 figures are forecasts.

Corporate history

1950

1980

1983

No.1 Plant

2000

Business history

MORI SEIKI

1948 Began manufacture and sales of textile machine in Yamato-Koriyama City, Nara Prefecture

Products history

1958 Started production and sales of high-speed precision lathes 1970 Construction and launch of lga plant 1979 Listed shares on the second section of the Osaka Securities Exchange 1981 Listed shares on the second section of the Tokyo Stock Exchange 1982

Established MORI SEIKI GmbH

Began manufacture and sales of

reached the top in the Japanese machine tool industry

numerically controlled lathes

Market share of NC lathes

The Company was transferred to the first section of the Tokyo Stock Exchange and Osaka Securities Exchange 1987 Completed construction of Nara Head Office Started actual operations at the Nara No.1 Plant 1992

Established MORI SEIKI U.S.A., INC.

(current DMG MORI U.S.A., INC.)

Started actual operation at Iga

Started operations at the Iga No. 2 Plant 1997

Started operations at the Iga No. 2 Plant High-Precision Facility

1999 Completed construction of MORI SEIKI Nagoya building (current Nagoya Head Office) Acquired ISO9001 certification

1981 Began export of high-speed

Began manufacture and sales of vertical machining centers

1983 Began manufacture and sales of horizontal machining centers 1994

Developed SH-50



2000

Established Digital Technology Laboratory (DTL) (current DMG MORI Digital Technology Laboratory Corporation)

2001

Acquired ISO14001 certification Established MORI SEIKI (SHANGHAI) CO., LTD. Consolidated TAIYO KOKI CO., LTD. as a subsidiary

2002

Started 24 hours a day, 365 days a year service support Took over operations from former HITACHI SEIKI Started operation as part of the MORI SEIKI Group Acquired OHSAS18001 certification

2003 Started operation of the Chiba Campus

2004 Established the Human Resources Development Center (current DMG MORI Academy) Transferred Head Office to Nagoya

2000

2004

Developed

Motor Turret)

Developed SH junior Expanded MT Series line-up Started use of CAPS-NET

2003 Developed DCG (Driven at the Center of Gravity) Developed DDM (Direct Drive Motor) Developed NV 4000 DCG and NH 4000 DCG Introduced a machine equipped with a HEIDENHAIN CNC into the European market



GILDEMEISTER

1870

Friedrich Gildemeister founded GILDEMEISTER & Comp. in Bielefeld

1906

Wilhelm Berg took over the company management and started mass production of machine tools

1910

Concentrated on its flagship products: turret lathes, multi-spindle automatic lathes, milling machines, and vertical and horizontal milling machines

1928

Released the POX multi-spindle automatic lathe

1960

1968

1976

1977

Developed SL-2

precision lathes

1950 Exhibited the RV50 turret lathe at Hanover trade fair

1961

Built a new manufacturing plant in Sennestadt and started operation (in1965)

Exhibited the company's first NC lathe (NEF) at EMO

1999

Entered the laser technology sector with the takeover of LCTec GmbH (present SAUER)

its history (1998 average exchange rate: 1DM = ¥70)

put the milling and drilling machine business on track ※ DECKEL AG and MAHO AG

1998

1995

Entered the field of the ultrasonic merged in1993 machining technology by the investment in SAUER GmbH & Co. KG Sales exceeded one billion Deutschmarks for the first time in

2002

2000

2001

The new plant in Seebach won the "Best Factory TM - Industrial Excellence Award 2002"

Repurchased its former subsidiary **GILDEMEISTER** Italiana

2003

DMG Nippon K.K. opened a technology center in Yokohama Established in Shanghai the first production plant in Asia



2005

2005

Completed construction of the Iga Campus Heat Treatment Plant

2006

Completed construction of the Iga Campus Casting Plant

2007

Established AKISHINO MOLD LABORATORY, LTD. Consolidated DIXI machines as a subsidiary

2008

Consolidated TOBLER S.A.S. as a subsidiary Consolidated B.U.G., Inc. (current DMG MORI B.U.G. CO.,LTD.)

2005 Developed NVD 1500 DCG Developed NT Series

2006 Developed NMH 6300 DCG Developed NMV 5000 DCG

2007 Developed NZ Series



NZ 2000 T3Y3

2005 DMG Asia established the spare parts center

2008 Adopted new design

2011 Opened the HSC center

2012 Expanded the plant in Seebach

2009

Collaboration started

2009

Established the Tokyo branch Started capital and business collaboration with DMG of Germany

2013

unified

Company names

2010

Acquired the measuring equipment business of Sony Manufacturing Systems Corporation, and consolidated as a subsidiary named Magnescale Co., Ltd

2009

MAPPS integrated operation panel completely revamped, and started installing on new models as MAPPS IV

2010 Developed the X-class machines (NLX, NVX, NHX, NTX)



March 2009 Started husiness collaboration with DMG

September / October 2010 DMG/Mori Seiki joint booth at IMTS and JIMTOF

April 2012 Established DMG MORI Europe AG in Switzerland Started joint sales and service across Europe

August 2013 Established the Joint Committee

September 2013 Unveiled CELOS and machines with premium design as the World Premium at EMO Hannover 2013

October 2013 Company names unified

March 2014 Became the Exclusive Premium Partner of Porsche team

July 2014 Tokyo Global Headquarters started operation

April 2015 Adopted IFRS Changed accounting period (irregular accounting period from April to December) Consolidated DMG Established DMG MORI WASINO, LTD.

June 2015 Developed NRX 2000 Developed A 150 Series Developed G 100 Series

July 2015 Opened the world's largest Global Solution Center in Iga

September 2015 Ulyanovsk Plant (Russia) started operation

December 2015 Developed NLX 6000

January 2016 Established the System Solution Plant in Nara

February 2016 Released Technology Cycles

August 2016 Domination, Profit and Loss Transfer Agreement came into effect

2015 Started integrated management as a

consolidated entity

2016 Accomplished

business integration 2018

Products history

2011 Established MORI SEIKI SALES AND SERVICE CO., LTD. (current DMG MORI SALES AND SERVICE CO., LTD.)

2012 Established the Iga Campus Bed / Column Precise Processing Plant Established North American Factory in Davis city, California

2013 Established Tianjin Factory in China

2011 Developed NTX 2000 Developed NZX Series Jointly developed MILLTAP 700 with DMG

2012 Developed NVX 5000 II Series



DMG MORI

September 2016 Released CMX V Series Agreed on technological cooperation with Microsoft Japan

January 2017 Partnership agreement with TOYOTA GAZOO Racing

February 2017 Introduced powder bed technology to additive manufacturing segment

June 2017 Released LASERTEC 30 SLM

July 2017 Table-integrated vise Released built-in vises Opened Emerging Technologies Laboratory

September 2017 Standardized GREENmode

October 2017 Released DMU 50 3rd Generation

November 2017 Opened Shanghai Technology Center

January 2018 Released 3-year warranty service for MASTER spindle series

Global Network The most comprehensive sales and service network in the machine tool industry. Global production network for optimized production. Ekaterinburg Moscow Ulyanovsk Shenyang Istanbul Beijing Ankara Tianjin Izmi Seoul Xi'an Tel-Aviv Shanghai Cairo Chongqing • New Delhi • Dubai Dongguan Taichung Ahmedabad Hamburg Hanoi • Pune Fredericia Pirkkala Frankfurt Bangalore Manila Bielefeld Amata Nakorn Gothenburg Stipshausen Ho Chi Minh Dusseldorf Veenendaal Kuala Lumpur • Hilden Pleszew Singapore Zaventem Seebach Langenhagen Coventry Brno Borchen Trencín Jakarta 🔍 Stollberg Stockerau Paris Wernau _____Leonberg Plana Budapest Hufingen Winterthur — Ljubljana Pitești Zagreb Toulouse Belgrade Wiazburg San Sebastian Munich Sofia Geretsried Barcelona •Lecce Thessaloniki Madrid Pfronten Sydney Klaus Marinha Grande Padova Melbourne • Bergamo Milan Tortona Strambino Scionzier Lyon

Global Headquarters Centrally manage DMG MORI's global

sales, service, marketing, finances, accounting and human resources

Tokyo (Japa

National Headquarters Function as the head offices of DMG MORI CO and DMG MORI AG





Bielefeld (Germany)



Production and development bases (overseas)

Pfronten (Germany)













Tortona (Italy) [GRAZIANO]





Stipshausen (Germany) [SAUER GmbH]







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Development and production bases (Japan)



Development and production bases (Group company)



DMG MORI's innovation

The world's leading machine tool manufacturer DMG MORI owns technologies to offer advanced and optimal solutions for customers. As a total solution provider, we holistically provide solutions combining a machine tool with systems and software.

With the milling mechanism of conventional turning centers, the power from the motor is transmitted through various parts such as gears and belts, causing heat and vibration over a wide area. DMG MORI employs the industry's first builtin motor turret structure. This has minimized heat generation and vibration and improved transmission efficiency, contributing to drastically enhanced machining accuracy and cutting force.

Highly efficient drive is achieved by transferring the driving force directly, without transmission through gears, and there is no backlash either. Because there are fewer parts to wear out, there is less maintenance and the product life is extended. In addition, high-speed feed has been enabled by substantially increasing the transmission efficiency when compared with conventional worm gear systems. A DD table where the DDM is fitted to turning tables and the DDRT where it is fitted to rotary tables are also available.

In addition to quality improvement and short-term delivery, DMG MORI promotes in-house parts production to shorten lead time for product development.

Under this unprecedented initiative, we utilize on-premise facilities to machine, assemble and inspect in-house spindles and ball screws, both of which are decisive factors for machine tools' quality.

Furthermore, we extended charge-free warranty coverage in pursuit of safer and more comfortable operation. Since January 2018, 3-year warranty has been available for MASTER spindle series, which are mounted universally on DMG MORI machine tools. It is applied to 5 types of MASTER spindles; powerMASTER for heavy cutting, speedMASTER for high-speed machining, 5X torqueMASTER for large sized 5-axis machining centers, compactMASTER for mill-turn centers and turnMASTER for tuning centers.

The DMQP (DMG MORI Qualified Product) program certifies machine tool's peripheral equipment that meets DMG MORI standards in quality, performance and maintainability. Over 5,000 kinds of equipment and software from 60 companies in the world have been qualified. We provide customers with total support, from proposals of our reliable DMQPs to delivery and maintenance, ensuring long-term and comfortable operating environments for them. We will continuously enhance the lineup to offer greater solutions for customers.

Higher machining accuracy and cutting ability

[Built-in Motor Turret]



Long life-span and energy saving [Direct Drive Motor]



Self-manufacturing of industry-leading core technologies



Comprehensive support with machine + peripherals



DMQP: DMG MORI Qualified Product
A new IoT platform for engineering industries "ADAMOS" was initiated in October 2017, as part of our solution to improve productivity with IoT / Industry 4.0. This open and neutral IoT platform links cutting-edge machines and software from any manufacturers. It allows one to connect multiple machine tools around the world via an operation system CELOS, and to perform remote maintenance, operation management, and accurate failure prediction to enhance machine availability. Furthermore, with "CELOS NETbox" to exchange data among DMG MORI's and other companies' machine tools, we will demonstrate digital factory with guaranteed security.

DMG MORI Digital Factory



We developed Technology Cycles as a comprehensive solution to make complex and advanced machining easier and faster, replacing the conventional complicated and time-consuming procedures. They are new machining solutions that integrate ① Machine tool body, ② Cutting tools and peripheral equipment as open innovation, ③ Embedded software, and ④ HMI (Human Machine Interface) such as CELOS. With Technology Cycles, machining, setup, and measurements which used to be done with specialized machines, software, and tools, can be performed with general purpose machines and standard tools and fixtures. This allows any operator to start up machining operations easily and quickly, while ensuring high-quality cutting performance. For example, with one of the Technology Cycles "gearMILL," all the processes including turning, milling and gear machining can be completed on a single machine, instead of the combination of specialized machines and programs required in a conventional method. Technology Cycles are classified into four groups by function: Handling (to support machine setups); Measuring (to make high-accuracy measurements); Machining (to support complex machining); and Monitoring (to monitor and detect machining procedures using sensors). A great variety of functions is available according to customer's production needs.

MATRIS, our newly-developed robot system, requires no expertise in daily operation. This system links modularized peripherals, robots and machines via dedicated control system MAPPS connected, which replaces complicated programming for setup change with simplest operation.

The modularized peripherals, including transfer equipment, workpiece stockers and in-machine measuring equipment, ensure quickest installation and flexible and easier retrofit.

A total solution combining four elements



New automation system with no expertise required



Our technologies

Turning



With micrometer precision and durability — that's how precision components and tools for the fields of aerospace technology, precision mechanics, the automotive industry, optics, medical technology, electrical engineering and oil & gas production have to be manufactured. Turning technology is used in machine tool engineering and plastic



and metal processing. The workpiece spins continuously at a high rate of speed while the turning tool is applied to the proper position and excess material is removed from the workpiece in a precise and targeted fashion. The technology of turning is almost as old as the wheel itself. Without turning, there would be no other machines or plants. Today almost any material can be processed with hundreds of different tools, which are often made of carbide.

As the innovation leader in metal cutting, DMG MORI has worked to perfect the craft of turning since its inception. The company offers a comprehensive product portfolio, encompassing machines for all industries and practically all materials.

While in the early days turning machines only had a single tool, later machines with automatic tool changing were added to the mix - making machines more useful every step of the way. One driver of innovations was the growth of the automotive industry. They required a cost-effective means of producing components on a mass scale. DMG MORI developed highly productive multi-spindle automatic machines for this purpose, in which up to six spindles can work simultaneously. Most workpieces are further refined with other technologies as well. To achieve that without changing machines, over recent decades DMG MORI has continuously improved and adapted its turning machines to the latest requirements with additional milling spindles or grinding functions, for example, which can be switched in just seconds with a tool changer. The company also offers increasingly customized products tailored to customer requirements, offers complete solutions and equips the processing centers with automation solutions. With the app-based control and operating environment CELOS, the machines can also be integrated into digital factory scenarios.



Milling



When the tool in a machine rotates —rather than the workpiece —this is, roughly speaking, referred to as milling.

In milling, the tools, of which there are dozens to choose from, and the product that is currently being processed, are moved in relation to each other along at least three axes. In many machines, turning and swiveling movements are included as well: This 5-axis machining enables the creation of highly complex geometries. In many machines, turning and grinding tools can be used which allow workpieces to be processed in a wide variety of ways. From pure milling applications and 5-axis simultaneous machining to turn & mill machines and the integration of grinding, DMG MORI has played a major role in the development of the technology.

Our versatile machines are used in a variety of industries: structural components for the aviation industry and blisks for turbines and drive systems, deep-drawing molds for radiator grilles and lamp housings and planetary carriers for gear stages attached to servo motors. Our milling machines are used to manufacture dental implants and bridges. transmission housings and gear wheels, engine blocks and ships' propellers. Milling technology, in contrast to drilling and turning, has only been in wide use since the 19th century. Since that time, the simple machines of the early days have been transformed into true all-rounders—as 5-axis machines, vertical or horizontal machining centers, or even XXL machines for exceptionally large components weighing up to 150 metric tons. DMG MORI continuously develops its milling technology. The products are characterized by the highest stiffness, accuracy, productivity and precision. In the years to come, they will increasingly be equipped with automation solutions and Industry 4.0 capabilities, ready for everything in the completely digital factories of the future.





Advanced Technologies

Additive Manufacturing

[Universal solutions from CAD and CAM up to combined machining to finished part quality]





In Additive Manufacturing, the latest Advanced Technology with which dental components, drill bits and deep-drawing tools are produced, a workpiece is builtup over a series of small steps. This technology employs two fascinating procedures: in Selective Laser Melting (SLM) —also referred to as a powder bed method —a laser melts a metal powder step by step. This is how delicate geometries such as lattice and honeycomb structures —as well as any other imaginable shape, in one piece and without seams, are created. In Additive Manufacturing of metal components, Selective Laser Melting has a market share of 80 percent. With the acquisition of Realizer, DMG MORI has brought this expertise directly into its own portfolio. The company has had another Additive Manufacturing technology in its portfolio for some time: powder nozzle technology. In this method, aluminum or titanium powder, for example, is applied by the argon gas flow through a nozzle and melted into a strand of liquid metal. This builds the desired geometry step by step. DMG MORI is the first full-liner worldwide for Additive Manufacturing of metal components and offers the two most important Additive Manufacturing technologies from a single source.

Ultrasound technology

They set standards with their innovative quality. DMG MORI has been using ultrasound technology for decades. Under the name ULTRASONIC, complex geometries can be manufactured in sophisticated materials in an economic manner—components such as watch housings, circuit boards, gear wheels and blade wheels, orthopedic implants and rotor blades for helicopters and windmills. The milling or turning processes are overlaid by a high-frequency oscillating motion. This makes the machining process faster, more precise and, with some hard materials, even possible in the first place.







The ceramic material for dental bridges is extremely hard. That's why a very special procedure is used. The workpiece is ground with a diamond-coated tool stimulated by ultrasound in order to shape the surface. In this manner, the material can be processed in a very economical manner.

Sales activity

From SMEs* to major companies diversity in our customers

DMG MORI receives orders in a geographically well-balanced manner in general, and 50% are from the three technology-leading countries, Germany, the United States and Japan. We also have customers from a broad range of industries, such as the automotive and aerospace fields, which we consider as our strength. The size of our corporate customers varies as well; approximately 60% of our customers are companies with 100 or less employees. It shows that our products are chosen from diverse regions, industries and company scales.



(2017)



A sales system matching regional characteristics and commercial distribution

DMG MORI has a solid sales system that matches the characteristics, culture and commercial distribution of each region. As we completed the transition of our sales system in Europe and the Americas in 2015, from sales through distributors to a direct one, we are making necessary personnel allocation and enhancing sales and service bases. Under the renewed organization, we provide service support within 2 hours upon request. In Japan and Asia, we will continuously maintain and strengthen cooperation with regional communities and distributors.

Trade shows and exhibitions to connect us with customers

Every year DMG MORI holds exhibitions and seminars all over the world aiming to directly show our products and technologies to our customers. It is a good opportunity for us to present practical and technical know-how with the latest technologies in live-demos, as well as the industry trends. We put a full effort into each and every exhibition, from private shows at major regional cities to big international shows across the world. This maximizes the opportunities to interact with customers.



DMG MORI at EMO 2017, Hannover

Engineering activity

Experiencing the cutting-edge machines and machining technologies live at any time

DMG MORI showcases state-of-the-art machine tools and equipment in our clean and spacious solution centers to study and solve various machining issues together with customers. At our solution centers around the world, professional engineers who speak English, German or Chinese are always available to show our cutting-edge machines and machining techniques in live demonstrations and test machining. The solution centers also play a role as an experimental center to develop new technologies through joint research of workpieces and tools with customers.



Global solution center in Iga (Japan) has 3,500㎡ areas

Global Engineering Support

Best solutions for customers

DMG MORI's excellence centers for "Aerospace", "Automotive", "Medical", and "Die & Mold" are located in major factories. Engineers with specialized knowledge and expertise in industry's specific requirements and machining processes make suggestions for optimized solutions to each customer.

Aerospace industry demands extremely high level of quality and reliability of complex parts for engines and landing gears. Automotive industry needs machine tools to produce many kinds of parts including cylinder blocks, crank shafts, and gear boxes. Medical industry deals with a variety of materials, for example reinforced plastic, titanium, and cobalt-chrome alloy. Die & Mold requires handling of various types of geometry.

Engineers at excellence centers work closely together with DMG MORI's 1,000 application engineers all over the world to make optimized solutions for every customer's requirements.





Service and Parts

Service centers supporting customers' production 24/7

More than 75% of the problems are solved by telephone support

(as of March, 2018)

All service call functions are centralized in service centers, which is in constant operation. Information of delivered machines and repair service history are all stored in a secure database on a daily basis so that our staffs can provide customers with optimal solutions in the shortest possible time. In case of machine troubles, our employees can remotely operate the machine from the service center for quick recovery. More than 75% of the problems are solved by telephone support.



Substantial service and support with 157 bases in 43 countries / regions

Technical centers are our bases to provide field service to customers. As soon as receiving calls from service centers, service engineers at each technical center start preparing for on-site repair. They visit the customer's site immediately upon request, listen to their needs face-to-face and offer them meticulous and speedy service as highly skilled engineers.



Parts Centers serving the entire globe

95% of the spare parts are shipped within 24 hours ${}_{\scriptscriptstyle (as of March, 2018)}$

DMG MORI has established 3 global spare parts centers around the world to provide reliable post sales service for customers. Global parts centers in Nara (Japan) and Geretsried (Germany) store more than 100,000 parts, while the one in Dallas (U.S.A.) has over 50,000 parts in stock. This ensures prompt parts shipment across the world.



Parts center in Geretsried (Germany)

Our Plants



| Opened in | 1970 | |
|---|-----------------------------------|--|
| Campus area | 577,000 m ² | |
| Core competencies | Turning centers & milling centers | |
| Excellence Center for Die & mold | | |
| Assembly capacity of over 3,500 machines per year | | |
| Approx. 1,600 employees at the location | | |
| Products | NLX、NTX、NZX、CMX V、NVX、NHX、NMV | |

IGA(Japan)

In 1970 Mori Seiki opened its plant in Iga — an initial high point in its enormous expansion. Iga would become a key component at the heart of the group. Today, DMG MORI in Iga is one of the largest machine tool factories in the world. With some 1,600 employees, it is also the largest facility within the group. In addition to turning and milling machines, the location also produces components for other plants.



Iga At 577,000 m², the Iga campus is the largest in the entire network of plants.

$\mathsf{NARA}\left(\mathsf{Japan}\right)$

Mori Seiki (now DMG MORI Co., Ltd) was born in the city of Yamatokoriyama, Nara in 1948. Today DMG MORI is an inextricable part of the fabric of Nara. The historic plant manufactures turning and milling machines, but also handles automation solutions for which it built a dedicated hall. It is delivering systems solution to such industries as automobile production, aircraft and energy and so on. Global spare parts center is also located there to deliver spare parts worldwide.



| Founded in | 1948 | |
|----------------------|--|--|
| Campus area | 60,000 m ² | |
| Core competencies | Turning centers, milling center and automation | |
| Excellence Center fo | r Automotive | |
| Assembly capacity of | up to 2,000 machines per year | |
| Approx. 600 employe | es at the location | |
| Products | NLX, G/GG, A/AA, NZX-S, J/JJ, NRX, CMX V, | |
| | i-Series NMV | |



Production of the horizontal machining center "i 50" at the Nara. With the i 50, DMG MORI offers an ultra-compact, horizontal machining center that considerably increases productivity in large-scale series production of engine components such as cylinder blocks and cylinder heads in automobile manufacturing.



| Founded in | 1870 |
|----------------------|--|
| Company grounds | 180,000 m ² |
| Core competencies | Universal turning, production turning (horizontal / vertical), turn & mill (Gildemeister company), additive manufacturing (Realizer company) |
| Assembly capacity of | up to 1,000 machines per year |
| Approx. 1,000 employ | yees at the location |
| Products | NEE CTX_CTX_TC_CTX_4A_CTV_LASERTEC_30_SLM |

BIELEFELD (Germany)

The new district of Sennestadt is home to the headquarters of DMG MORI AKTIENGESELLSCHAFT. Also produced there are the additive manufacturing machines from the Realizer company. The Sparrenburg sits high above, yet still at the center of the city. This landmark attraction in the largest city in East Westphalia is a popular destination for excursions with a spectacular view of the city and its 330,000 inhabitants.



| Founded in | 1920 | |
|--|--|--|
| Company grounds | 149,000 m ² | |
| Core competencies | More than 50 machine types in the milling segment (Deckel Maho) LASERTEC (Shape, PrecisionTool, PowerDrill) and Additive Manufacturing (Sauer) | |
| Excellence Center Aerospace and Die & Mold | | |
| Assembly capacity of up to 1,500 machines per year | | |
| More than 1,500 employees at the location | | |
| Products | DMU/DMC monoBLOCK, DMU/DMC duoBLOCK, DMU P/DMC U Portal, DMU Gantry, NHX, DMC H linear | |

PFRONTEN (Germany)

Back in 1920, when five engineers decided to join forces, no one could have predicted that one day the firm would become one of the leading machine tool manufacturers in the world. The guintet named their young, ambitious company Maho, and in 1950 the firm started building machine tools for its own purposes. Larger companies soon took notice and began ordering specially constructed machines from Maho. In 1970, the company therefore decided to focus exclusively on this aspect of the business, acquired Graziano in Italy, went public with the company, merged with Deckel and ultimately joined Gildemeister in 1994, which today is DMG MORI. Pfronten is an important development location and largest production location in Europe as well as a specialist for milling. 50 different machines are produced here. The location also houses the headquarters of the Sauer company, the leading manufacturer of LASERTEC and additive manufacturing machines.

DAVIS (The United States)

DMG MORI opened its first production location in the United States here in 2012—thereby creating one of the most state-of-the-art factories in the entire group. For DMG MORI, Davis is the company's foothold in North America. The location produces turning and milling machines, but also ideas for the future — conceived both by developers at the plant and the students at nearby universities.



| Campus area | 110,000 m ² | |
|--|------------------------|--|
| Core competence | milling machines | |
| Assembly capacity of up to 1,200 machines per year | | |
| Nore than 180 employees at the location | | |
| Products | CMX V, NHX | |

TIANJIN (China)

In 2013, DMG MORI established Tianjin plant in China. Today, Tianjin produces horizontal machining centers (NHC series) and vertical machining centers (CMX series) for customers in China. At the same time, the factory is an important location for the group to meet growing demand for automation and machining of casting, one of the key components of machine tools.



| Opened in | 2013 | |
|--|-----------------------|--|
| Campus area | 90,000 m ² | |
| Core competence | milling machines | |
| Assembly capacity of up to 1,200 machines per year | | |
| More than 120 employees at the location | | |
| Products | CMX Vc, NHC | |
| | | |

Group Companies

TAIYO KOKI

In 1989, TAIYO KOKI developed the first vertical grinding machine with improved operational efficiency. TAIYO KOKI's grinding machines ensure high precision and high rigidity, and continue to offer various advantages such as spacesavings, flexibility and automation.

TAIYO KOKI has introduced many models from small machines for mass-production parts to large machines for high-mix, low-volume production.

Customers have given very positive feedback from all over the world.

Commercialization of products is effectively accomplished by incorporating both market analysis and customer requests into product planning.







TAIYO KOKI CO., LTD.

221-35, Seiryo-machi, Nagaoka City,Niigata, Japan Phone : +81-258-42-8808 Fax. : +81-258-42-8810



Magnescale Magnescale

The products of Magnescale Co., Ltd continuously contribute to the advancement of machine tools with excellence in environmental resistance, accuracy and resolution. In addition, the LASERSCALE is indispensable in fields where the highest resolution is required for next generation technological innovations, for instance, cutting-edge semiconductor manufacturing systems and die & mold production of optical components such as digital camera lenses.

Magnescale was launched as a wholly owned subsidiary of DMG MORI in April 2010, after DMG MORI's acquisition of the measuring instrument division of Sony Manufacturing Systems Corporation, which had operated for nearly half a century in the magnetic measuring technology field.

The Iga production facility with a building area of 4,800 m² (51,667.2 ft2) was established in 2011 with a production goal of 3,000 units per month. In 2017, a full production line for new SmartSCALE was furnished in the facility.

DMG MORI will continue to offer customers products with even higher precision by installing Magnescale technology on our machine tools, and fulfill customer needs for innovative inspection by introducing new measuring instruments and measurement control systems.



Smart SCALE

The world's first water and dust proof, open-type, high-accuracy, high-resolution absolute Magnescale that requires no air-purging was launched. Featuring the simple structure with the head and the scale separated, it achieves a high resolution of 0.005 μ m despite the large mounting tolerance of ± 0.1 mm.

- Achieved a protection class of IP67 for dustproofing and waterproofing
- Max. resolution of 0.005 μm
- Max. response speed of 200 m/min
- Vibration resistance of 250 m/s²

http://www.magnescale.com/mgs/language/english/

Isehara Plant Research and Isehara Plant Development Base Iga Plant Vibration-free precision plant







Shipping from Iga plant for Pfronten plant



The scale will be attached to DMC 340 FD

Magnescale Co., Ltd

45 Suzukawa, Isehara City, Kanagawa, Japan Phone : +81-463-92-1011

Fax. : +81-463-92-1012

DMG MORI B.U.G.

DMG MORI B.U.G. CO., LTD. was established in 1980 in Sapporo as an IT start-up company of Hokkaido University. Since then, DMG MORI B.U.G. has been developing cutting-edge computer technologies

by utilizing its extensive technical expertise in both hardware and software.

In 2008, DMG MORI B.U.G. joined the DMG MORI group. DMG MORI B.U.G. makes significant contributions to improving operator-friendliness and increased productivity of machine tools through the development of the next generation

operation software such as CELOS and MAPPS V. Both products were jointly developed with DMG MORI, and they are easy to operate and highly competitive. Moreover, DMG MORI B.U.G. strongly promotes research and development projects for IoT, as demand for such technology is expected to grow further. DMG MORI B.U.G. is a key part of the group for achieving that goal, given its abundance of experience in the development of network devices and embedded software.

DMG MORI B.U.G. CO., LTD.

1-1-14, Shimonopporo Techno Park, Atsubetsu-ku, Sapporo City, Hokkaido, Japan Phone : +81-11-807-6666

Fax. : +81-11-807-6645



Saki Corporation Saki

http://www.sakicorp.com/en/

With a solid foundation in automatic visual-inspection technology, Saki Corporation has developed automatic inspection equipment for electronic parts mounting processes, utilizing two-dimensional, three-dimensional and X ray CT images, since its initiation in 1997

and X-ray CT images, since its initiation in 1994. Internal development of hardware and software allows high-resolution, high-speed and high-accuracy inspection in line with technology advancement of electronic equipment. With the recent smart factory trend in electronic parts mounting process, Saki Corporation will further promote worldwide M2M collaborations with major manufacturing equipment producers and continuously provide pioneering total solutions.

Saki Corporation 3-1-4, Edakawa, Koto-ku, Tokyo, Japan



REALIZER GmbH REALIZER

REALIZER GmbH is located in Borchen, Germany. The company has more than 20 years of experience and knowhow in selective laser melting, or powder bed, which is one of the technologies of Additive Manufacturing.

In February 2017, DMG MORI acquired 50.1% of shares in REALIZER GmbH and consolidated a framework of cooperation to develop additive manufacturing technology. In 2017, DMG MORI launched LASERTEC 30 SLM, a new powder bed type additive manufacturing machine. DMG MORI and REALIZER continue research and development to provide new solutions for powder material and complex metal parts production to maintain strong competitive edge.



http://www.realizer.com/en/





REALIZER GmbH Hauptstraße 35, 33178 Borchen, Germany

LASERTEC 30 SLM

CORE COMPETENCE

Machine tool's accuracy is $5 \,\mu$ m, or 5/1000 mm.

It is so tiny that human eyes can hardly see.

What is more, machine tool must guarantee repeatability of this accuracy.

The uncompromising pursuit for accuracy of machine tool is the foundation

of the manufacturing industry.

And that is why machine tool has an enormous impact and responsibility for the entire society.



Developments in our society



DMG MORI keeps pace with changes in our society - shift to EV (electric vehicle), development of AI (artificial intelligence), and aging society. EV-shift will boost demand for new components such as motor and battery, and for production equipment with new machining technologies to handle new types of materials. AI-shift will lead to increased demand of semiconductor components, and of production equipment to machine ultra-high precision parts. Aging society will change the existing production equipment and environment to more automation, and generate greater demand for medical parts such as socket for knee and hip joint, bone screw, and implant. All of them are new business opportunities for DMG MORI. DMG MORI offers machining solutions to produce complex work pieces and handle a wide range of materials by utilizing its sophisticated Multi-axis, automation, and integrated solutions, as well as advanced technologies such as laser- and ultrasonic machining and Additive Manufacturing.

Multi-axis, automation, and integrated solutions Expanding business domain

In semiconductor, aerospace, and medical industries, our customers need to produce complex parts in small lots. Against this background, we expect a growing demand for 5-axis machining centers to facilitate integration of multiple work processes and machining of complex work pieces. With more than 30 years of experience in 5-axis machining centers, DMG MORI has the most accumulated technology and knowhow in 5-axis machining throughout the industry.

Among all, DMU series are the bestselling 5-axis machining centers of DMG MORI. More than 10,000 units have been installed worldwide.



DMU 50 3rd Generation



Expanding business domain

Source : Company estimation based on statistics by VDW(2015)

A combination of DMG MORI's 5-axis machining center with Technology Cycles starts to replace specialized machines designed for limited purposes. In aerospace, medical, and semiconductor industries, Additive Manufacturing and ultrasonic machining will gradually override the conventional forming technologies. With the market of cutting machines consisting of conventional turning and machining centers being almost saturated, DMG MORI will pro-actively develop new business domain for mid- to long-term growth.

Automation System



10 NHX 5000 connected with each other

Automation is a priority issue for both DMG MORI and customers. Automation is especially important in the age of digitalization where we are today. DMG MORI is in the process of providing standard automation solutions to all of its machine tools. – A system to connect peripheral equipment for work piece storage with machine tools, to load and unload work pieces automatically in- and outside of the machining area without human intervention. Our goal is to connect machines and automation equipment in the most intelligent and smart way. This will lead to improved efficiency of pallet as well as work piece handling.

DMG MORI has developed an all-new robot system MATRIS that requires no special knowledge for its operation based on the wealth of experience and expertise DMG MORI has cultivated over the years. With modularized peripherals, a robot and MAPPSconnected, a dedicated system to connect peripherals and machines, MATRIS eliminates complex program editing and achieves easy system setups on a simple operation screen.

In addition to being able to install in a short period of time, it is a robot system which can complete layout change in a short time after installation, due to module-based design of peripheral devices.



MATRIS



Digitalization

Common user interface with intuitive touch functions

DMG MORI invested enormous efforts to develop CELOS. This operation system makes it possible to transform ideas into products by quick and simple processes. CELOS covers a wide range of areas with its unique functionalities. For example, a variety of applications tailor made for every process, multi-touch operation panel that is innovatively easy to use, security control by DMG MORI SMARTkey to define access rights individually. CELOS is a future-oriented user interface that continues advancing at customer's factory.

Operation system CELOS



New solutions to make complex machining easy and quick Technology Cycles are new solutions that consist of the following 4 elements:

1) Machine tools, 2) Open innovation of cutting tools and peripheral equipment, 3) Embedded software, 4) HMI (Human Machine Interface) such as CELOS. Technology Cycles make it possible replace specialized machines, specialized programs, and special cutting tools by standard machines, cutting tools, and fixtures in machining, set-up, and measurement processes. Anyone can start production quickly and achieve high quality. DMG MORI offers total solutions around machine tools, including peripheral equipment and software.

Technology Cycles



"Gear skiving" A Technology Cycle to support programming of gear machining (power skiving).

The future of manufacturing is digital: Material supply, machine operation and process control are increasingly connected—from individual machines to assembly lines and even entire factories. ADAMOS—a strategic alliance of partners in the mechanical engineering and software fields —was established in 2017. The objective: shared global industry standards for the "digital factory."

With DMG MORI, customers can make an incremental and individualized start into the world of digitized manufacturing. The basis for this is the app-based operating and control software CELOS, which fully integrates the machines into the sales organization and simplifies and accelerates the process from the idea to the finished product.

On a high-resolution display, CELOS visualizes the current processing status of the machine and the production process, provides indicators on the current job and provides information to the operator through special apps, icons and text messages. CELOS is as easy to operate as a smartphone.

By accessing to the open platform ADAMOS through CELOS, customers can connect their machines and peripheral devices, regardless of the different network protocols. That's the realization of an open connectivity. In many industries, digitization has only just begun. DMG MORI, by contrast, already has a comprehensive



Digitalization by CELOS and ADAMOS

foundation from which to lead its customers around the world into the digital future with CELOS and ADAMOS.





Advanced element technology

We offer 5 types of MASTER spindles; speedMASTER for high-speed machining, powerMASTER for heavy cutting, 5X torqueMASTER for large-sized 5-axis machines, compactMASTER for mill-turn centers and turnMASTER for turning centers. MASTER series conceives accumulated technology and knowhow of the entire DMG MORI group, and assumes optimized design for each applicable model. We started producing in-house spindles along with turning centers, and the rich experience serves the quality of this internallymanufactured spindles.

3-year warranty service for MASTER spindles



speedMASTER

powerMASTER

5X torqueMASTER

compactMASTER

turnMASTER

To produce parts by machine tools, material will be machined from different angles, and that requires repeated movement of axes either straight or rotational. Controlling the movement of multiple axes of machine tools quickly and precisely, or in other words, controlling the positioning accuracy is the key to achieve higher productivity and machine's accuracy. Measurement devices such as scales and sensors are key components of machine tools where high accuracy is required. Scales and sensors will become even more important in the future to know the status of every part of machine tools, for example by attached sensors which measure position, pressure, temperature, and vibration, to feedback the measured results to machine's control, and to utilize the data for optimized control and preventive maintenance.

DMG MORI's group company Magnescale Co., Ltd. produces smart scales. DMG MORI is currently in the process of mounting smart scales on all models as standard.

Mounting smart scale as standard in progress



In Pursuit of Quality

In January 2018, DMG MORI started 3-year warranty service for all the MASTER-series spindles mounted on DMG MORI's machine tools regardless of locations of production and sale. This is to guarantee safer and better usability of our products by our customers worldwide. Warranty service for "MASTER" spindles



PPR system

PPR (Product Problem Report) is DMG MORI's quality management system to share information of product problems at customers' factories and to make improvements in DMG MORI's design and production processes. DMG MORI Co., Ltd. has more than 20 years of experience in quality improvement by PPR. This system was expanded to DMG MORI AG, too, to accelerate problem solving of AG's product quality.



CORPORATE SOCIAL RESPONSIBILITY

CSR activities of DMG MORI

DMG MORI's CSR-guideline sets goals for sustainable growth based on long-term business perspective.

As a globally operating company, DMG MORI commits itself to contribute to achieving the Sustainable Development Goals (SDGs).



SUSTAINABLE GCALS DEVELOPMENT GCALS

At "The United Nations Sustainable Development Summit" held in New York at the UN Headquarters from September 25 to 27, 2015, countries adopted "Transforming our world: the 2030 Agenda for Sustainable Development" - an action plan with goals and declarations for the human being, the planet and prosperity. Following the Millennium Development Goals (MDGs), "The Sustainable Development Goals (SDGs)" consist of 17 goals and 169 targets.

DMG MORI commits itself to make contributions to achieve these goals for sustainable development.



| For the Society | DMG MORI's Actions |
|--|--|
| Well-balanced management with respect to diverse stakeholders Sustainable business as a base for continuous generation of values to the society Preventing production of Weapons of Mass Destruction and contribution to peace | Diversified management Appropriate risk control Thoroughgoing export control |
| Reduction of environmental burden arising from machine tool usage Reduction of environmental burden arising from production and transportation of machine tools | Development and sale of energy saving products Energy saving in production More efficient transportation |
| Equal and fair employment Gender equality and empowerment of women in the society Motivating and inspiring workplace for employees | Diverse workforce creating vibrant corporate culture Empowerment of women at work Supportive workplace Human resources development |
| - Sustainability throughout the entire supply chain network | - Supplier management based on procurement guideline |
| Growth with community Improvement of quality of life of even more people through technology development | Contribution to community activities Technology research through business-academia collaborations |
| Transparency of corporate activities and accountability toward stakeholders including financial supporters | - Fair and timely disclosure of information |

Corporate Governance

1. Our Basic Approaches to Corporate Governance

Enhancing corporate governance and management monitoring functions is the first priority for DMG MORI, because it would lead to even higher transparency of our business to the entire society including our shareholders, investors, customers and business partners, employees, and members of the community, and to make our business operations fair and efficient.

We will continue to work on improving our corporate value with consistency for long term, and continuing business based on even higher standard of corporate ethic.

2. Corporate Governance Structure

DMG MORI applies an audit system by Auditors.

Our basic approach is to execute top-down business decisions quickly and efficiently, founded on the prevailed audit system exercised by appointed Auditors.

Out of 9 members of the Board of Directors, 4 are External Directors (Ratio of External Directors being 44%) as of March 22, 2018. We have been coping with quick changes in the market environment and technology trend that are unique to the machine tool industry. Against this background, our management structure consisted of a limited number of Directors supported by Operating Officers to enable quick decision making. Since 2015, however, we increase the number of Directors by appointing External Directors. The number of External Directors increased from 2 out of in total 7 Directors to 4 out of in total 9 Directors in 2017. Their presence provides increased transparency and objectiveness to company's business. All of the 4 External Directors have professional management experience. They bring in a wide range of insights based on their specialized knowledge in engineering and other areas.

The Board of Directors discusses on important business strategies for the future of the company. Discussions on daily business operations are conducted at the meetings of Management Committee and Operating Officers. This structure enables extensive discussions by the Board of Directors and at the same time quick actions in business operations.

The Board of Auditors consists of a full-time Corporate Auditor, a former member of the Board of Directors with extensive knowledge in company's operations, and External Directors, who are more independent from company's business. In accordance with the audit principles, each Auditor attends and makes comments at meetings of the Board of Directors, Operating Officers and departments, and other important meetings. They inspect documents for important decision making and conduct strict audit over the headquarters, departments, campuses, technical centers, and subsidiaries inand outside of Japan. To conclude, DMG MORI's corporate governance structure is efficient; it makes the company's management fair and transparent, because management reforms such as establishing a compliance system are made possible by quick decision making of a small number of Directors and by productive discussions at meetings of the Board of Directors.



Ratio of External Directors and Auditors (as of March 22, 2018)

Corporate Governance Structure of DMG MORI



Introduction of Board of Directors As of March 22nd, 2018

Name

Brief personal history

Masahiko Mori President, Dr. Eng.

Dr. Mori is a grandchild of the company founder. After graduating from the Department of Precision Engineering, the Engineering Faculty, Kyoto University in 1985, he joined ITOCHU Corporation and was engaged in global sales and marketing of chemical textile machinery. He joined the management team of DMG MORI CO., LTD. (then Mori Seiki Co., Ltd.) in April 1993. After expanding machine tool sales network worldwide, he assumed the president office in June 1999, which made him the youngest among the presidents of the companies enlisted to Tokyo Stock Exchange Section No.1. With his rich experience in global business, he committed himself to investment and M&As at an unprecedented level for the industry, thus he was often called "outlandish." In order to internalize latest technology and knowledge, he gained himself a doctorate in Engineering and actively hired and promoted external human resources. In the year of 20-year anniversary of his presidency, he will wrap up the integration with the German counterpart, which has been in process since 2009. As a top manager of the industry-leading company, he is determined to further enhance the company's value by securing rigid governance structure and fulfilling the social responsibility.

External board

members



Hiroaki Tamai Executive Vice President

After graduating from Doshisha University in 1983, he joined Accounting Department of DMG MORI Co., Ltd. (then Mori Seiki Co., Ltd.). He was transferred to the U.S. sales company in 1984, and studied machine tool business and accounting in the U.S. Upon return to Accounting Department in Japan in 1988, he practiced finances, tax and fund raising of a listed company. For a decade since 1992, he served the former president and learned management skill in the Management Planning Office, as he witnessed real-time management strategies and judgments of the 60% exportdependent company during the financial crisis incurred by stronger yen after Plaza Accord in 1985 and slow growth after the failure of bubble economy. Since August 2002, he led the partial business acquisition of Hitachi Seiki Co., Ltd., which had just applied for rehabilitation proceedings, and establishment of a new company. Since 2009 when DMG MORI started collaboration with AG, he has been Director in charge of human resources, and committed to the penetration of basic value throughout the group, business culture integration and staff trainings.



Hirotake Kobayashi Executive Vice President

Upon graduation from the Faculty of Economics, Keio University, he joined Kirin Holdings Company, Limited (then Kirin Brewery Co., Ltd.). He holds PMD, Harvard Business School. After assuming Representative Director of Kirin Holdings Company, Limited, he joined DMG MORI in October 2015 and has been CFO since March 2016. At Kirin Holdings Company, Limited, he started his career in Accounting Department of the factories and headquarters. During his tenure in International Brewery Business Department, he was engaged in planning and executing business growth strategy, such as leading an investment negotiation to a major brewery company in Australia. He has gained rich experiences in domestic and international M&As ever since. He became Representative Director in charge of accounting in 2007, Senior Executive Officer in charge of strategy planning in 2008, and Representative Director of Kirin Holdings in 2012 responsible for business investment, collaboration and information strategy. Now he heads accounting and finances in DMG MORI, utilizing his vast experiences to meet the expectations of shareholders and investors by promoting aligned management with AG and cultivating a financial and accounting basis for further growth of the industry-leading company.

External board

members

Name

Brief personal history



Naoshi Takayama Executive Director, Dr. Eng.

After graduating from the Department of Mechanical Engineering, College of Science and Engineering, Aoyama Gakuin University in 1981, he joined MAKINO MILLING MACHINE CO., LTD. After being engaged in grinding centers R&D, he was promoted to a project leader of horizontal machining center development. He moved to DMG MORI Co., Ltd. (then Mori Seiki Co., Ltd.) in December 2002, and has developed machining centers for mass production, camshaft lathes and 5-axis machines, which preceded the current i-series, NZX-S series and NMV series. Those machines were suitable for mass production of automotive parts, and have contributed to expand the share among major automobile manufacturers. He became Director and Executive General Manager of Development Headquarters in 2007 and headed procurement and quality in 2009. He gained an engineering doctorate from Osaka University in 2011. Throughout the collaboration with AG he has been committed to the integration of development process, unit components and our quality-securing system PPR. Currently he is Director in charge of development and quality, determined to develop and deliver the best products to customers with his motto "Best learning opportunities lie in customers' plants.'



Kenji Oishi Executive Director

As he graduated from the School of Law, Waseda University in 1987, he started his career in DMG MORI CO., LTD (then Mori Seiki Co., Ltd.). He practiced procurement and accounting in Japan, after which he experienced 4-year tenure in Europe. Upon his return in 2002, he became General Manager of Procurement Department, and later General Manager of sales and development. He earned MBA from Waseda University in 2008, and assumed his position as Director and Executive General Manager of Procurement, Logistics and IT Headquarters in 2014. He has been Executive Director in charge of Procurement, Logistics and Manufacturing since March 2017. In his responsibility, he balances in-house production and outsourcing to streamline and facilitate the manufacturing process. He also oversees establishment of an IoT-equipped cutting-edge machining plant in Iga. Upon the integration with the German company, he will promote joint procurement and enhance strategic supplier sourcing, utilizing procurement capacity of the two companies and the confidences both sides have cultivated with Japanese and German potent suppliers. In this way, he will establish a mutually-beneficial relationship with the most competitive partners.



Tojiro Aoyama External Director, Ph D.

He obtained a bachelor's degree in 1974, a master's degree in 1976 and an engineering doctorate in 1979 from the Department of Mechanical Engineering, Faculty of Engineering, Keio University. His doctorate thesis themed "Dynamic behavior of hydrostatic thrust bearings and the optimum design method." He became an assistant of the said department in April 1979, and after serving as a fulltime lecturer and an associate college professor, he was promoted to a professor. During his tenure as an assistant, he studied tribology for one year at RWTH Aachen University in Germany. He was assigned to the dean of the Faculty of Science and Technology and the chair of Graduate School of Science and Technology in July 2009, and to a professor emeritus in April 2017. He has been the vice-president of Keio University since May 2017. He specializes in production engineering and his scope of researches includes sophistication of constituent elements of machine tools, development of functional materials and monitoring of machining process. He is a fellow for CIRP (The International Academy for Production Engineering), the Japan Society of Mechanical Engineers and the Japan Society for Precision Engineering. He has been in DMG MORI as an external director since June 2015, utilizing his academic expertise and experiences in university management to advise on technology development and trainings, in pursuit of further contribution to machine tool technology around the world.

Name

Brief personal history



Tsuyoshi Nomura External Director, Dr. Eng.



Makoto Nakajima External Director



Takashi Mitachi External Director He obtained a master's degree from the Department of Precision Engineering, Graduate School of Engineering, Kyoto University in 1978. Upon the graduation, he joined Kobe Shipyard & Machinery Works, Mitsubishi Heavy Industries, Ltd. and designed nuclear power plants. He moved to Production Engineering Laboratory, Matsushita Electric Industrial Co., Ltd. (currently Panasonic Corporation) in 1990. In 2000, he earned a qualification for Professional Engineer. He practiced analysis simulation technology (CAE), as well as measuring, inspection, kinematics, control, and material process technology, after which he joined a fuel cell project and Jisso Core Engineering Lab. He was assigned to President of Advanced Production Systems Development Company, Limited, which scope includes production facility, die and mold, and software businesses, and later to Executive Officer of Manufacturing Innovation Division to lead the production technology and manufacturing projects of the whole group. He became Director in 2009, Managing Director in 2013, and Managing Executive officer of Manufacturing Innovation Division in charge of manufacturing innovation, quality, logistics and procurement, and environment. He earned an engineering doctorate in 2013 from Osaka University. After retiring from Panasonic, he founded Nomura Techno Co., Ltd. to provide venture companies with support for manufacturing and management, utilizing industry-academia network. He contributes to further growth of DMG MORI with his long-term management experience, first-hand practices in production technology, quality, procurement and environment, and the wide range of technical knowledge.

After graduating from the Faculty of Law, University of Tokyo, he joined Ministry of International Trade and Industry. He was assigned as a responsible official for commercial negotiation and industrial cooperation at the Mission of Japan to the EC/Embassy of Japan in Belgium for 3 years since May 1984. Upon his return to Japan, he proceeded through Trade Policy Bureau, Industrial Policy Bureau (where he founded Intellectual Property Policy Office, using the word "intellectual property" for the first time, protected trade secrets with Unfair Competition Prevention Act, and introduced stock options to promote business innovations of companies and ventures), Secretary to the Minister, Director of Policy Evaluation and Public Relations Division, Trade Bureau (where he promoted trade insurance system), Director of Industrial Machinery Division and Director of Budget and Account Division. He became Director General of Kinki Bureau of Economy, Trade and Industry in 2001, and Director General of Trade and Economic and Cooperation Bureau (where he reached Japan-Mexico Economic Partnership Agreement). In 2005, he assumed office as Commissioner of Japan Patent Office, committed himself to acceleration of patent examination process, globalization and alignment with other countries' patent system. He also started the five-nation commissioner meeting with the U.S., EU, China and Korea during his tenure. He joined Sumitomo Electric Industries, Ltd. in 2008. He was registered as attorney in 2009, and practiced law in management planning, legal affairs, intellectual property, public relations and export control. In June 2016, when he was Representative Senior Managing Director of Sumitomo Electric, he retired from the company and soon after he joined Japan Institute of Invention and Innovation as Vice Chairman and Senior Executive Managing Director, where he has promoted invention and raised awareness of intellectual property system. He has been DMG MORI's External Director since March 2017.

Yes

Yes

External board

members

Yes

He earned a bachelor's degree from the Faculty of Letters, Kyoto University in 1979, and MBA from Harvard Business School with Baker Scholar in1992. He had been engaged in management consulting for directors of major companies in The Boston Consulting Group for 24 years. He served as Japan Co-chair of the said company and a member of Global Executive Committee for a long term, and is experienced in management of global company himself. He advises the government from business point of view, as Vice Chairman of KEIZAI DOYUKAI (Japan Association of Corporate Executives) and a member of several panels of experts. He is also a member of Global Agenda Council of World Economic Forum, and he proposes solutions to Global Agenda Council in his duty. He continuously contributes to enhance the corporate value of DMG MORI by supporting management internationalization with his rich experiences.
Message from an External Auditor



Yasuyuki Kimoto DMG MORI CO., LTD. External Auditor

Status of corporate governance

The status of corporate governance should be measured not only by external standards such as organization and system, but also by looking at the real management. Special attention should be paid to the following points: 1) Does the management and business execution team led by CEO exercise a full control over the entire company and facilitate internal communication?, 2) Do Directors and Auditors carefully monitor and control over business execution team?, and if yes, are both sides well balanced?

To the point 1), my evaluation is that under the strong leadership of CEO, the business execution team understands the situation of the company well. It's widely known that in most Japanese companies, employees have better access to the top management than in non-Japanese companies, and internal communication at Japanese companies takes place relatively often. Here at DMG MORI, like many other Japanese companies, internal communication takes place relatively often in a family-like atmosphere. Nevertheless, the company should learn lessons from a series of problems recently revealed at some big manufacturing companies in Japan where the management and business execution teams failed to exercise control over their companies. Since the size and scope of business of DMG MORI are expanding dramatically during the past years, the company needs to further strengthen its corporate governance system. The company needs improvements for example in the following areas: ① To establish organizational structures to reduce excessive burden on CEO, ② To facilitate even closer mutual communication within the group with consideration to a possible risk at AG that decisions could be made for its own sake rather than for the benefit of the whole group.

To the point 2), my evaluation is overall positive, because the company pro-actively appointed external members of the Board of Directors and the Board of Auditors. Discussions at meetings of the Board of Directors are productive and involve External Directors. Auditors carry out their duties not only by evaluating documents, but also by visiting factories and other locations to have direct conversations, and by conducting individual meetings with each Director and the Financial Auditor.

Going forward, the company should take the difference in corporate structures of Japan and Germany into account, and set priority for thoroughly visualizing the information within AG and sharing that information with each other. I welcome regular reports by selected members of the business execution team including those from AG at meetings of the Board of Directors. The company should continue its efforts to make contents of such reports more fruitful.

It would be difficult to roll out Japanese approaches and standards as they are to all over the world. To establish a truly global corporate governance system, the company should take coordinated approaches in business operations through globally integrated corporate philosophy and systems, and facilitate open and global communication, while paying enough respect to different corporate cultures, customs, and approaches from county to country. Few Japanese companies have ever achieved that level. I encourage DMG MORI to continue its efforts to create a new model for Japanese companies in the 21st century.

Introduction of Auditors As of March 22nd, 2018

Name

Brief personal history



Tatsuo Kondo Corporate Auditor

After graduating from Waseda University in 1973, Mr. Kondo joined NTN Corporation (formerly, Toyo Bearing Manufacturing Co., Ltd.) He acquired experience in financial control of major factories. From 1987 to 1994 he worked at the company' s subsidiary in the United States and dealt with a variety of challenges in the midst of Japan-US trade conflict. After going back to Japan, he gained extensive global management experience in Business Planning Department through M&A projects and launch of new factories in overseas. In January 2009, he joined DMG MORI (formerly, Mori Seiki Co., Ltd.) to lead Accounting and Finance Headquarters and the business collaboration project with AG with a view to capital integration. After completion of the step-by-step capital integration project, introduction of IFRS, and conclusion of DPLTA, he headed the management integration project with AG and implemented restructuring of group companies and organizations. In March 2017, he was appointed as full-time Corporate Auditor. In addition to general duties as Auditor, he is responsible for audit of subsidiaries of AG. Founded on his expertise gained through his past assignments, he contributes to strengthening the company's governance system to match its global business operations.



Yasuyuki Kimoto External Auditor

Mr. Kimoto joined The Sumitomo Bank, Ltd. (currently, Sumitomo Mitsui Banking Corporation) in 1971. He gained experience mainly in international business, as well as in organization reform and large investment projects as a member of the headquarters. In 1987, he moved to London, and then to New York to gain further experience in international financial business. In 1997, he assumed office as head of the International Planning Department, and guided the company through the financial crisis in Asia. In 2001, he was appointed to lead the business in Europe and became President of Sumitomo Mitsui Banking Corporation Europe. In 2004, he became a member of the management committee to lead the entire business of the corporation. After serving as President of The Japan Research Institute, Ltd., he worked as Chairman of the Board of Director of Olympus Corporation from 2012 to 2015 to rebuild the company. Mr. Kimoto's business acumen was nurtured through his work experience in both field and the headquarters, and through handson management experience outside of Japan to overcome differences in cultures and approaches. As Auditor of DMG MORI, he contributes by sharing his practical knowledge and experience in tackling with and overcoming a variety of crisis and governance problems within the organization.

Yes

Yes

External board

members



Sojiro Tsuchiya External Auditor, Dr. Eng.

After graduating from the Graduate School of Engineering at Nagoya University, he joined Nippondenso Co., Ltd. (currently, DENSO CORPORATION) in 1975. As a production engineer, he developed production systems of precision parts of cars, including development and utilization of machining technologies such as cutting and grinding. Later, he was responsible for productivity improvement of the whole factory through CIM (Construction Information Modeling/Management) and FA (Factory Automation). In 2001, he earned a PhD in Engineering from Gifu University by his research in precision control of hydraulic technology. In 2002, he was appointed as Executive Director and Member of the Board to lead the entire production engineering and manufacturing departments at DENSO. In 2011, he became Executive Vice President to lead the production globally. In 2013, he left the position, but continued to provide advice on production engineering as Executive Advisory Engineer/Advisor until 2016. In March 2017, he was appointed as External Director of DMG MORI. At the same time, he serves as External Director of Toyoda Gosei Co., Ltd. and NISSEI CORPORATION, as well as Chairman of Japan Institute of Plant Maintenance. He engages himself pro-actively in management and development of production engineering. As External Auditor of DMG MORI, he provides insights from customers' point of view as a long-time user of machine tools, and exercises control over the company's management based on his knowledge in management and production engineering.

Remuneration of Corporate Officers

The amount of compensations, etc. of DMG MORI's Corporate Officers and the principle for its calculation method are determined within the compensation framework approved by the Annual General Meeting of Shareholders. In case of Directors, compensations are determined by taking each Director's contributions to business and the status of business execution into account. In case of Auditors, compensations are determined by discussions of Auditors.

Please find below the status of compensations in 2017.

| Title | Right of representation | Name | Headcount | Basic compensation (mil. JPY) | Performance-based compensation (mil. JPY) | Total compensation amount (mil. JPY) |
|---|-------------------------|--------------------|-----------|-------------------------------------|---|--|
| Total: Directors (excluding External Directors) | | | 6 | 300 | 225 | 525 |
| * Directors whose total compensations, e | etc. exceed 100 r | nil. JPY | | | | |
| Director and President | Yes | Masahiko Mori | - | 78 | 70 | 148 |
| Director and Executive Vice President | Yes | Hiroaki Tamai | - | 62 | 40 | 102 |
| Director and Executive Vice President | Yes | Hirotake Kobayashi | - | 59 | 42 | 101 |
| | | | | | | |
| Total: External Directors | | | 4 | 68 | _ | 68 |
| Grand total: Directors | | | 10 | 368 | 225 | 593 |
| Compensation framework of Directors | | | | | | 600 |
| | | | | | | |
| Total: Auditors (excluding External Auditors) | | | 2 | 40 | 20 | 60 |
| Total: External Auditors | | | 3 | 39 | _ | 39 |
| Grand total: Auditors | | | 5 | 79 | 20 | 99 |
| Compensation framework of Auditors | | | | | | 100 |

Amount of compensations, etc. of Directors and Auditors (January-December, 2017)

Attendance at board meetings by each Director

The Board of Directors convened 13 meetings with the attendance of External Directors and External Auditors to plan management strategies, and to enhance appropriate and efficient business execution by each Director.

Furthermore, the Management Committee consisting

of Directors and full-time Corporate Auditor convened 13 meetings, and Operating Officers convened 11 meetings, to understand and manage the risks of the entire business operation. Please find below the status of attendance by each Director and Auditor at meetings of the Board of Directors.

| | Name | Status of attendance | Note |
|-----------|--------------------|--------------------------------|---|
| | Masahiko Mori | Attended 13 out of 13 meetings | |
| | Hiroaki Tamai | Attended 13 out of 13 meetings | |
| | Hirotake Kobayashi | Attended 13 out of 13 meetings | |
| | Naoshi Takayama | Attended 13 out of 13 meetings | |
| Directors | Kenji Oishi | Attended 13 out of 13 meetings | |
| | Tojiro Aoyama | Attended 13 out of 13 meetings | |
| | Tsuyoshi Nomura | Attended 13 out of 13 meetings | |
| | Makoto Nakajima | Attended 9 out of 10 meetings | Appointed on March 22, 2017 with the total number of meetings convened being 10. |
| | Takashi Mitachi | Attended 10 out of 10 meetings | Appointed on March 22, 2017 with the total number of meetings convened being 10. |
| | Tatsuo Kondo | Attended 13 out of 13 meetings | Before March 22, 2017: Attended 3 meetings as Director. After March 22, 2017: Attended 10 meetings as Auditor. |
| Auditors | Yasuyuki Kimoto | Attended 13 out of 13 meetings | |
| | Sojiro Tsuchiya | Attended 10 out of 10 meetings | Appointed on March 22, 2017 with the total number of meetings convened being 10. |

Status of attendance at meetings of the Board of Directors

(Note) Auditors Mr. Hisao Sato and Mr. Yoshito Kato retired on March 22, 2018. Each of them attended 13 out of 13 meetings.

Risk Management

Recently, increased attention is given worldwide to nonproliferation of weapons of mass destructions and prevention of excessive accumulation of conventional weapons. Against this background, DMG MORI established the Export Control Committee headed by the company's President to stipulate or amend internal rules (compliance program) for strict implementation of export control laws and regulations, and to perform uncompromised control over each decision whether or not to export company's products. To further strengthen internal control system, the company established the Information Disclosure Control Committee, an advisory board to determine disclosure of information. Led by the head of Administrative Headquarters, the Committee should contribute to making the company's management more transparent and healthy.

About BCP (Business Continuity Plan):

After the Great East Japan Earthquake in March 2011, DMG MORI created manuals for disaster management. Its disaster management plan contains information on members assigned for disaster management in each department including group companies according to the areas affected by disasters. As part of disaster prevention activities, the company updates the manuals regularly, checks the inventory of disaster prevention goods, and tests connectivity of satellite phones, etc.

Others:

DMG MORI has established an internal reporting (or whistleblowing) system to facilitate autonomous improvement within the organization. In case of sexual harassment and other problems where special considerations to the privacy of employees are needed, an external third-party institution takes the lead. If employees have worries about health and other challenges in life, they can turn to professionals for free of charge. In this way, the company is trying to support employees to continue their career even in times of difficulties.

Information Security:

To guarantee continuous and stable business operations, DMG MORI gives special priority to appropriately protect and control its technology information, which is an important business asset of the company, as well as various kinds of information received from customers and business partners. The Information Security Committee established in 2016 has completely renewed and strengthened the information control system.

The Information Security Committee will work on implementing the Basic Policy for Information Security strictly. By doing so, the Company will take necessary measures to guarantee the security of our products and to protect the customers' information, while offering manufacturing solutions mainly through machine tools. Further, the Company will continue to provide ever increasing value, innovation and unlimited possibilities of machine tools to customers worldwide while following international laws and regulations.

Basic Policy for Information Security:

- In order to protect all of its information assets from unauthorized access, theft, destruction, manipulation, and leaks, the Company will appoint a person with overall responsibility for information security management. Further, the Company will establish the Information Security Committee to construct an appropriate management structure.
- The Company will continuously implement educational programs necessary to raise the awareness of the importance of information security for all the employees and persons involved in its business.
- 3. The Company will strictly follow laws and regulations, code of ethics, and internal rules. By carefully observing the social environment and the technological advancement, the Company will continuously review its internal rules, structures, and systems. In this way, the Company will strive to evaluate, maintain, and improve its information security management system.
- Any violation of the Basic Policy of Information Security and its related rules will be dealt with severely.

Export Control

1. Export Control of Machine Tools

Machine tools with numerical control that we manufacture and sell are used for producing complex and precise metal parts, which means, machine tools are in principle capable of producing parts for weapons of mass destruction and conventional weapons as well, if users intend to do so. This is why high-performance machine tools are strictly controlled by "Foreign Exchange and Foreign Trade Act" (hereinafter referred to as "Foreign Exchange Act") to avoid machine tools and their related technologies being used for production, etc. of weapons of mass destructions and conventional

weapons.

With a view to increasingly unstable international security environment, more attention is given worldwide to non-proliferation of weapons of mass destructions and prevention of excessive accumulation of conventional weapons. If our products were used for military purpose, this would be not only a significant risk for our business, but also a threat to international peace and security. This is why we put strong focus on strict evaluation and control of customers to avoid that our machine tools will be used for inappropriate purposes such as military use.







2. Export Control System

DMG MORI's basic approach is to follow Foreign Exchange Act and other laws and regulations when exporting goods, supplying technologies, and conducting agency transactions. DMG MORI has established a "DMG MORI Export Control Program" to make its employees understand and follow the said approach. The company continuously updates the content of the program in accordance with revisions of Foreign Exchange Act and changes of internal organizations.

President & Representative Director of the company takes full responsibility for the program. He chairs the Export Control Committee, or an advisory board. Export Control Department implements the program.

Members of the Export Control Committee are President & Representative Director (chairman) and all the internal Directors of the company. The Committee stipulates and amends internal rules and appoints persons in charge of operation. Export Control Department is responsible for operation of the program. They evaluate customers and make applications for export license to the Ministry of Economy, Industry and Trade (hereinafter referred to as "METI"). In DMG MORI's export control system, every item to be exported or technologies to be supplied to overseas must obtain an approval by Export Control Department. In addition, to guarantee companywide operation of and education on export control, Human Resources Department makes training plans on export control and Internal Audit Department audits the operation.

Corporate Export Control Structure



3. Export Control Process (Pre-Export Assessment)

One of the key points in export control is to obtain a confirmation from companies or organizations that are going to purchase our products and services in advance "to utilize DMG MORI's machines only for civil purpose and not for military purpose that will pose a threat to international peace and stability". When Sales receives inquiries from customers, we first check the content of business of those customers. We also make sure whether the desired products are subjected to export control regulations or not. After receiving orders, we perform thorough background checks based on documents and visits. Thereafter, we apply for export license to METI. After receiving the export license, we perform the final check before shipment of the ordered machines.

If we have any doubt during the above mentioned process that our products may be used for military purpose, the head of Export Control Department will be informed and the Export Control Committee will make the final decision.

Pre-Export Assessment Process

| When? | Who? | What? |
|---|---|---|
| At inquiry | Overseas offices, and Sales | Hearing and website information Consultation with Export Control Department |
| After receiving order | Overseas offices and Sales | Explanation to customers and collection of documents Visit customers (on-site check of expected installation locations) |
| Detailed assessment before application | Export Control Department | Check possibility for military use base on documents and web information - Does the user operate business with armed forces? - Do persons around the user have any connection to armed forces? - Is the user going to use our machines for civil purpose? - Any risk of resale or usage by the third party? |
| Application for export license to METI | Export Control Department | Prepare documents and answer to inquiries from METI |
| Final assessment | Export Control Department Head of Export Control Department | Final confirmation and evaluation of export control - Are products/technologies in question really subjected/not subjected to export control regulations? - Are all the producers appropriate based on laws and regulations? - Is there absolutely no concern about military use? - Are special conditions of approval required? |
| Final check before shipment | Chairman of the Export Control Committee | Final approval after consideration of concerns on export control, sales conditions, payment, etc. |

4. Export Control Process (After-export control by machine relocation detection devices)

In addition to pre-shipment assessment to prevent usage of our products for military purpose, we continue monitoring and control even after export of machines to guarantee that our products will never be used for military purpose as a result of unauthorized resale to the third party. To minimize the risk of unauthorized usage of our products by the third party, all the DMG MORI machines are equipped with GPS-based devices to detect machine relocation.

To unlock the machines from relocation detection

Outline of GPS-based relocation detection devices

devices, which prevent the machines from being used for unintended purposes, authorized employees responsible for export control must register the GPS-information of the expected location for installation and the name of the employee who will visit the site. When the employee visits the location, he/she must obtain the GPS-information once again on-site and confirm that both data are identical before making the machines operational. If someone relocates or resells the machines without informing DMG MORI, the machines cannot be used.



Internal Control

DMG MORI CO., LTD. resolved "Internal Control Guidelines" at the Board of Directors and accordingly implements the policy. The summary is as follows.

1. Compliance and risk management

DMG MORI defined criteria for specific actions of Directors, Operating Officers and other employees by speculating rules in Mission Statement, Employee Handbook, Compliance Handbook, Export Control Program, Information Security Policy, and Management System for environment, labor safety and health and quality, and secures compliance by accordingly implementing them. We also organize compliance trainings for new employees and other staffs, depending on their level, as well as associated e-learning and other learning opportunities.

In addition, we operate "Workflow" system as an electronic document processing system on a consolidated basis, in pursuit of quick decision making, transparency and secure management of electronic data.

We set up a compliance hotline and the associated regulations, while operating electronic weekly report system on a consolidated basis, to ensure smooth communication among management, superiors and subordinates.

We established Information Security Policy in 2015 against information leakage and cyber attacks, in order to enhance information security of the whole group. We also utilize IT for internal audits, such as monitoring with internal check systems to prevent information leakage.

For management of subsidiaries, we hold a series of regular meetings on a consolidated basis, occasionally utilizing TV conference system. We pay visit to the presidents and directors regularly or irregularly and implement periodic internal audit to understand and optimize their operation. 1 or more DMG MORI Directors are assigned to directors or auditors of the subsidiaries and attend the board of directors and other key meetings, in order to hear the updated status from the other directors or operating officers.

2. Internal audit

DMG MORI has a dedicated team for internal audits, Internal Auditing Office, directly under President. It oversees optimized and efficient business operation of the whole group. Appropriate criteria are applied when auditing risk management system of subsidiaries, taking the business nature and scale into account. Reports from subsidiaries are shared with Auditors upon audits or audit liaison meetings, given the contents of the report and the business scale.

Currently, Secretarial Department, Administrative Headquarters and Accounting/Finance Headquarters jointly develop a structure to efficiently discuss and share compliance-related issues and give associated instructions throughout the group, based on the abovementioned report and audit system.

3. Auditing by Auditors

The Audit & Supervisory Board or Auditors of DMG MORI have regular exchanges with President and irregular ones with Financial Auditors.

Auditors hear resolutions or reports at key meetings including the Board of Directors, Management Councils, FT Meetings, access to and investigate Workflows and weekly reports, and if necessary request explanations to Directors, Operating Officers and other employees.

If Directors, Operating Officers and other employees witness potential damages to the company, they need to immediately report it to the Audit & Supervisory Board or an Auditor, as is stipulated in "Regulation to ensure the effectiveness of audits conducted by Auditors". It also allows the Audit & Supervisory Board or Auditors to request reports from Directors, Operating Officers or other employees.

DMG MORI prohibits itself from giving unreasonable treatment to the employees who inform Auditors of negative facts, and oblige all the staffs to follow the rule.

4. J-SOX

DMG MORI has established J-SOX section under Internal Auditing Office in October 2005, preceding the governmental regulations for the new internal control report system over financial reporting in accordance with the Financial Instruments and Exchange act. Since then, we have successfully developed and operated internal control system in line with the legal framework, inside and outside the group.

On the AG side, former ICS (Internal Control System) Department manages the new system in close cooperation with the AG internal audit section.

Our internal audit section and the AG counterpart operate J-SOX together, and Financial Auditors investigate the joint report as part of the internal control report system of the whole DMG MORI group.

Environment

As an industry leader and responsible corporate citizen, we will: Conserve environmental resources at all times to preserve the global environment

1. Environmental policy

We will reduce energy consumption in our business activities, use resources effectively and prevent environmental pollution.

We will use resources and energy carefully and produce environmentally-friendly products.

We will raise our employees' environmental awareness and as a responsible corporate citizen comply with environmental laws and regulations and legal requirements that apply to us, and support environmental policy.

We will aim to disclose information relating to environmental protection.

2. Environmental management system

In pursuit of efficient use of resources and energy and protection of global environment, DMG MORI introduced an environment management system called ISO14001 and earned external certification. With this system for environment preservation, we have successfully reduced energy consumption and industrial waste at the factories, promoted recycling, and designed environment-friendly products.



We produce solar power energy at domestic and overseas factories.



Environment-friendly mobility concept: DMG MORI factory staffs share electric vehicles for short-distance transportation.

3. Initiatives for energy-saving products and logistics

With an average life span of 15-20 years, quality of machine tools has a long-lasting effect on energy consumption. DMG MORI is committed to minimizing energy consumption of the products and factories, to sell secondhand machines for full utilization of resources, and to apply new packing and logistic methods with less wooden materials and CO₂.

GREENmode

We have standardized GREENmode since September 2017, which saves energy consumption by 45% (*1). Optimized functions are added in accordance with each machine's application and characteristics, with a focus on 4 items; shortening lead time, visualizing, eliminating idle time and introducing cutting-edge technology. Most significantly we have 9 functions for improving machining conditions and shortening machining time with control technology. We encourage our customers to enhance

Energy-saving with 4 technologies

productivity by reducing energy consumption, while contributing to environmental protection.

Since DMG MORI launched the sales of in-house operation system CELOS in 2013, we have invested in energy-saving function research. With over 150,000 installed machines and estimated 2,650 kg CO₂ reduction per machine, we expect CO₂ emission decrease of total 8 million tons or more in 20 years.

(*1) In comparison with FY1997 standard



Comparison in energy consumption volume





*Calculated from saved energy volume

Sales of used machines

DMG MORI reuses resources and saves energy consumption by selling retrofitted showroom machines, facility machines and trade-in machine. Since machine tools generally run for more than a decade, relatively young secondhand machines can turn into highly reliable products with a touchup of a skillful manufacturer like ourselves. Given the substantial amount of parts and materials used for a single machine tool, this approach greatly contributes to preserving natural resources.





Reforming the logistics procedure

Reusing in-house packages

Previously we used wooden boxes for machine transportation, which were discarded after one-time usage. But this approach was reviewed; the wooden containers were replaced with returnable pallets for overseas transportation and steel packages for domestic one, by which we reduced wood consumption by approximately 4,900t. We carefully wrap our machines with in-house plastic sheets with DMG MORI logo, with the aim to deliver customers' valuable items in a way that represents the highest quality. DMG MORI is the first domestic company in the industry to design its own packing sheets.



Steel package



Packing with DMG MORI plastic sheet

Reducing CO₂ emission with collective transportation

Parts produced by partner companies in Kansai, Tokai and Kanto areas are gathered at one point in the respective areas, and are collectively transferred by trucks DMG MORI arranges; in this way, CO₂ emission was significantly reduced from the previous individual transportation. 71 partners joined this initiative, which led us to decrease CO_2 emission by 5, 856 t in 2017. We will apply this method to partners in Hokuriku area in 2018.



Parts procurement and collective

4. Environmental Data

(DMG MORI)

| INPUT items | | location | unit | 2013 | 2014 | 2015 | 2016 | 2017 | |
|------------------------|------------|------------------|-------|--------------|--------|--------|--------|--------|--------|
| Energy input Productio | | Electricity (*1) | Japan | thousand kWh | 45,777 | 49,333 | 50,851 | 46,309 | 46,612 |
| | | Solar power | Japan | thousand kWh | 134 | 126 | 123 | 130 | 127 |
| | Production | Heavy oil (*2) | Japan | K٤ | 1,894 | 2,136 | 2,574 | 3,187 | 3,129 |
| | | City gas | Japan | thousand m³ | 195 | 173 | 196 | 175 | 0 |
| | | LPG | Japan | t | 264 | 296 | 279 | 228 | 304 |
| Water consumption | Production | Clean water | Japan | thousand m³ | 111 | 117 | 121 | 126 | 138 |
| | | Groundwater | Japan | thousand m³ | 84 | 75 | 74 | 104 | 93 |

Energy input and water consumption are dependent on production numbers and machine model composition of each fiscal year.

In the following table, we converted energy input to crude oil consumption.

| INPUT items | | | location | unit | 2013 | 2014 | 2015 | 2016 | 2017 |
|--------------|------------|------------------------|----------|------|--------|--------|--------|--------|--------|
| Energy input | Production | Converted to crude oil | Japan | K٤ | 13,948 | 15,093 | 15,906 | 15,281 | 15,185 |

| OUTPUT items | | | location | unit | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------|------------|-------------------------------|-------------|-------|--------|--------|--------|--------|--------|
| Greenhouse gas | Production | CO ₂ emission (*3) | Japan | t-CO2 | 30,004 | 32,498 | 33,815 | 32,425 | 32,197 |
| Industrial waste Production | Draduction | Final disposal amount | Japan(Iga) | t | 116 | 139 | 153 | 110 | 119 |
| | Production | Final disposal rate | Japan (Iga) | % | 3 | 4 | 4 | 3 | 3 |

[Scope of data] DMGMORI's factories in Japan(Iga, Nara, Chiba (until FY 2016))

[Fiscal year period] FY 2013 and 2014: from April 1st to March 31st of the following year; FY 2015-2017: from January 1st to December 31st.

Environmental data are dependent on production numbers and machine model composition of each fiscal year.

(*1)Energy input "Electricity" indicates the volume purchased from power generation companies.
(*2)Energy input "heavy oil" includes consumption for private power generation.

(*3)Greenhouse gas: Volume of CO₂ emission was calculated by using emission coefficients published by power generation companies.

(DMG MORI AG)

ENERGY KEY FIGURES*1,*2,*4

| in MWh | 2016 | 2017 | Change from previous year |
|---|---------|---------|---------------------------|
| Fuel consumption from fossil energy sources | 76,214 | 76,281 | 67 |
| of which natural gas | 29,120 | 30,681 | 1,561 |
| of which liquid gas | 118 | 325 | 207 |
| of which heating oil | 329 | 0 | -329 |
| of which fuel | 46,648 | 45,275 | -1,373 |
| Electricity consumption | 44,531 | 46,757 | 2,226 |
| of which procured from the grid | 43,340 | 45,456 | 2,116 |
| of which self-generation from renewable sources | 1,191 | 1,301 | 110 |
| Energy consumption in total | 120,745 | 123,038 | 2,293 |

CO2e EMISSIONS *1,*3,*4

| | 2016 | 2017 | Change from previous year |
|---|--------|--------|---------------------------|
| CO2e emissions in total (Scope 1, Scope 2) in t | 37,552 | 38,430 | 878 |
| Direct emissions (Scope 1) in t | 18,241 | 18,164 | -77 |
| Indirect emissions (Scope 2) in t | 19,311 | 20,266 | 955 |

*1: Includes the following sites in Germany: Bielefeld, Pfronten, Seebach; Italy: Brembate di Sopra, Tortona; Poland: Pleszew; Russia: Ulyanovsk.

*2: The conversion factors for liquid gas and heating oil are taken from the Bundesverband der Energie- und Wasserwirtschaft e. V. (BDEW – the federal association of the energy and water industries) 2017. The conversion factors for fuel were taken from the Bundesamt für Wirtschaft und Ausfuhrkontrolle (BAFA – Federal Office for Economic Affairs and Export Control) 2017.

*3: The CO2e emissions were formed as a product of the energy used and the corresponding emission factor. The factors for calculating direct emissions (Scope 1) of heating oil, diesel, gasoline and natural gas, are taken from the Department for Environment, Food & Rural Affairs (Great Britain). The six main greenhouse gases (carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF6), as defined by the Intergovernmental Panel on Climate Change (IPCC), were taken into account in calculating the CO2 equivalents (CO2e). The IPCC factors were used in the conversion. To calculate the indirect emissions (Scope 2) from electricity, country-specific factors were applied. The data was taken from "CO2 Emissions from Fuel Combustion 2017", International Energy Agency, 2017. Other emissions only occur in small quantities and will not be reported individually.

*4: Figures are extracted from Sustainability Report 2017 of DMG MORI AG.

Human Capital

As befits a worldwide corporation, we will: Foster a fair and open corporate culture, utilizing appropriate management initiatives; Emphasize company-wide communication with the recognition of earnest and enthusiastic team-oriented efforts; Respect each other's opinions and continually develop through friendly competition in energetic and cheerful workplaces.

----- From DMG MORI MISSION STATEMENT







12,375 staffs with different nationalities work for DMG MORI worldwide.

More than 14% are female employees, and around 60% come from Germany and Japan.





From young to old (as of December 31, 2017)

Distribution by job category [as of December 31, 2017]



DIVERSITY

DMG MORI offers the employees opportunities to participate in international projects. We believe that this cultural exchange nurtures diversity in the workforce, which leads to dynamic culture and sustainable growth. All employees are valued at DMG MORI, irrespective of their nationality or ethnic origin, gender, age, religion, sexual orientation or physical impairment.

The management of DMG MORI emphasizes equal opportunities for all employees.

As a globally operating group, we make the best use of our diverse employees to satisfy various requirements from customers and business partners.

A professional team with different backgrounds

DMG MORI has approximately 12,400 employees from 46 countries, each with different mother language, nationality, gender and specialty.

In every field and level, they are actively engaged with each other and respect the diversity. Although

Diversified working style

By offering both core time system and shift system, we encourage an efficient working style and less working hours. We prepared independent working day calendar for each department based on the peak seasons and events, and working hours is also being reviewed.

The employees can choose geological range of transfer from 3 options; "anywhere in the world," "anywhere in the country" or "within a certain region." They are free to define their own working style that suits their skills and specialties.

Average number of consumed annual paid holidays



Subject: permanent and contract Japanese employees Calculated on a basis of 20 annual paid holidays with different backgrounds, DMG MORI staffs are all professionals and have a shared goal of offering best solutions to the customers. In pursuit of the best performance, we are continuously committed to nurturing inclusive working environment.



Average annual working hours



Subject: permanent and contract Japanese employees

Employing and supporting staffs with physical impairment

A number of staffs with physical impairment work for DMG MORI, and play important roles in production, procurement and spare parts delivery. We have actively recruited them by participating job fairs hosted by Hello Work, as well as by developing a connection with neighboring high schools in Mie and Osaka Prefecture. We are committed to encouraging their social contribution.

Number of employees with physical impairment



Supporting working parent

We hope that each employee pursues their professional careers throughout child-caring and nursing period. That is why we established various systems to encourage continuous careers at DMG MORI, even after taking leaves for life events.

We offer maternity, child-care and nursing leaves,

supporting allowances for early returners from childcare leave and for nursery school fees, short working hours, as well as telecommuting during childcare leave. Many employees utilize these services to continue working for the company.



Overview of company's childcare support



DMG MORI Childcare Centers (Iga, Nara, Nagoya, Tokyo)

In April 2018, DMG MORI will establish all-time childcare centers for the permanent employees at all the key bases in Japan; Iga Campus, Nara Campus, Nagoya National Head Office and Tokyo Global Headquarters. The facilities will accommodate around 120 children under the age of 6.

In-house childcare centers have been available during weekends since 2016, as an initiative to support working parents with pre-school children. Upon strong requests from the center users, we decided to extend the service to weekdays, commemorating the 70-year anniversary in 2018.

We will be continuously keen to the needs of employees, so that they can lead fruitful professional and private lives with or without children.

DMG MORI Childcare Center



■ Number of employees who take childcare or

Inner court



Appearance

nursing leaves

Interior

Number of employees who works



with shorter working hours



For creating a better working place: harassment prevention

In pursuit of an optimal working environment for diverse culture, we are committed to eliminating sexual harassment. We offer an internal advisory center at Human Resources and local General Affairs

Departments for the victims and informers, as well as an external advisory center run by a professional consultation organization.

Human Resource Development

Training system to enhance individual skills

Human resource development is an important mission of DMG MORI; each employee is encouraged to be a global and professional player. We spend 1% of the annual turnover for trainings, in order to provide motivated staffs with ample learning opportunities. We offer level-specific trainings for new employees, management to Directors, as well as skill-specific trainings to brush-up expertise and management styles at DMG MORI Academy since 2006. TOEIC courses for English learners, open seminars

on latest machining technology and industrial trends, and online education system called EOD for machine tool-related topics are also among our lineup. The vast range of trainings successfully covers diverse career paths of the employees.

TQM activities

TQM (Total Quality Management) is a concept evolved from Toyota Group and other organizations. DMG MORI introduced it to the whole company operation and implements it with external help, aiming to stabilize and continuously enhance the quality of products, approaches to customers and internal processes through the activities.

In 2017, we generated a rule to implement TQM activities for 50 hours a year, applied it to all the domestic bases, and held a TQM tournament at the year-end. We will continue these activities in the following years for better products, services and customer approaches.



Spindle unit assembly team won the TQM tournament

DMG MORI Dojo

Passing down technology and raising successors are among the most significant challenges for technology companies. DMG MORI established a "Dojo (training area)," where skilled workers train younger ones. Dojos for scraping, safety and maintenance help us preserve the techniques and secure the best quality of our products.



'Scraping' Dojo

Emerging Technologies Laboratory

DMG MORI established Emerging Technologies Laboratory in July 2017, in order to develop young talents to lead IoT and other digital transformation in



line with the ever-changing customers' and social needs. The new facility offers learning opportunities for selected employees and long-term internships from Kanto area. With a view to decades ahead, we are cultivating human resources with strength in connected industries, including AI and cloud technology.



Public relations activities to potential candidates

We emphasize the importance and beauty of machine tools to students who rarely see our products in daily lives. 2-week internships are available for students on long-term holidays, where they experience our real business among the employees. We also offer a variety of events from showroom tours, plant tours and introductory seminars, and 1,500 students joined them in 2017.



DMG MORI Academy

DMG MORI Academy is an internal training institution for machine tool operation. Currently 19 trainers with 47 machines offer seminars for turning centers, mill-turn centers, machining centers, 5-axis machines and robots. All the trainings focus on operations, using machines equipped with actual tools. The followings are the main available programs.

New employee trainings

All the employees take this course as soon as they join the company. It covers the basic knowledge required for safe operation, and the trainees learn about potential risks in lectures and demonstrations.

Skill trainings

After the new employee training, all staff is introduced to machining procedures with turning centers and machining centers. They learn about tools, programming, tool compensation and dimension adjustment to attain deeper understanding of our products. The trainings are held once a year as a continuous learning opportunity.

Service trainings

Service engineers from Japan and Asian countries gather at DMG MORI Academy in Iga for maintenance trainings. Similar courses are held in DMG MORI Academies in Germany and Chicago, respectively for the engineers in Europe and the United States. The attendees learn about new products and review basic service operation to brush up their professional skills, expertise and service quality.

Application trainings

Attendant application engineers learn about new products and enhance their skill sets during the trainings. Among the lineup is a long-term course for machining and measuring technique, where the trainees can familiarize themselves with the operation of universal lathes, fraises, tuning centers, vertical and horizontal machining centers, mill-turn centers and 5-axis machining centers. Through these trainings, the engineers gain knowledge, skills and techniques required for machining such as machine operation, machining processes, workpiece fixture, tool selection, CAM programming, CMM and other measuring equipment.

Sales trainings

ASMs (Area Sales Managers) from Japan, Asia and other parts of the world take the trainings to understand our products better and to enhance their sales skills. Through programming and operation of turning centers and robots, the attendees can familiarize themselves with DMG MORI products and the marketing strategies.

Manufacturing trainings

A variety of trainings are available for manufacturers. One example is a measuring course, which offers learning and practicing opportunities of measuring equipment from micrometers, calipers to CMM. A basic course helps attendees understand hydraulic, pneumatic, electrical and sequence circuits with a circuit assembly practice. After the trainings, the gained skills and knowledge are immediately utilized in their daily duties.



Training

Trainees

AG traditionally offers apprenticeship program to help young talents explore their skills and career paths. In 2017, 359 apprentices were enrolled to the program. Job trainings are available in 10 technical fields, and the trainees can take associated courses at local vocational colleges or at applied science faculty of universities. The initiative was appreciated highly by German business magazine "Capital," and appraised as the nation's most committed enterprise to talent development.

■ BREAKDOWN OF APPRENTICES' SPECIALIZATION AND MAJOR IN %





Training on the job: 39 apprentices were part of the DMG MORI team for EMO trade fair in September 2017. They helped with machine demonstrations, supported the sales staff, and welcomed international customers.

WorldSkills Competition

Worldwide support for young engineers

Young and skillful engineers from around the world gathered for the 44th "WorldSkills" in Abu Dhabi, UAE, to prove their vocational skills. During the event held from 15-18 October 2017, more than 1,200 engineers from 62 countries competed against each other in 51 skill areas. DMG MORI is a long-standing sponsor as a Global Industry Partner, and offered 17 machining centers and 12 turning centers for the metal-cutting sections.

In WorldSkills 2017, metal-cutting machines were provided to the young professionals in 4 events: CNC milling, CNC turning, Manufacturing team challenge and Plastic die engineering.

DMG MORI contributed 17 DMU 50 3rd Generation (machining centers) and 12 CTX alpha 500 (turning centers) for these competitions, both equipped with the required CNC technology, an intuitive operation system CELOS and a latest Siemens NC unit "Sinumerik840D Operate 4.7."

In short, we are committed to the Worldskills competitions by offering innovative and reliable CNC machine tools in compatibility with Industry 4.0.



DMG MORI was a main sponsor for the latest WorldSkills in Leipzig, Germany.



WorldsSkills' sponsor since 2007

Tianjin factory: initiatives to cultivate human resources and raise employees' satisfaction

We are committed to securing safe and satisfactory working environment in factories worldwide, for employees' motivation and productivity and eventually for higher product and service quality and better feedback from customers. The following is an example from Tianjin factory, which achieved the highest turnover and gross margin last year in its 4-year history.

Principal approaches

- 1. Technical exchange meetings between after-shipment quality staffs and customers to enhance operation ratio of delivered machines.
- 2. Prospective graduates hired as factory interns and made ready for full-time job upon graduation.
- A football club established to encourage healthy exercises and smooth communication among team members.
- 4. 4 lines of dedicated commuting buses for the employees' safety.
- 5. A new dormitory for single and long-standing employees.
- 6. The canteen ranked fourth in canteen satisfaction ratio and awarded Most Excellent Canteen Award out of the 4,000 companies in Tianjin Economic-Technological Development Area.



Interns and apprentices



Safety training



Football club



Lunch at the canteen

Canteen satisfaction ratio, Excellent Canteen Award

Labor Safety and Health

DMG MORI CO., LTD. is committed to the preservation of safe working environment for employees and partner companies under a Labor Safety and Health Policy.

1. Labor Safety and Health Policy

"We recognize the importance of labor safety and health of all the individuals under the company's administration and are committed to creating a safe and comfortable working environment. For prevention of injuries and sickness of all the individuals under the company' s administration, we study past instances based on scientific facts and take necessary measures. We create a culture to respect labor safety and health, and strictly follow the associated regulations and requirements as a responsible member of the society. We disclose information relating to labor safety and health policy as much as possible.

2. Safety and health promotion

Heads of each plant and office host monthly Safety and Health Committees. The committee is consisted of the same numbers of management staffs and employees, resident partners and suppliers.

3. Labor safety management system

For the continuous implementation and enhancement of labor safety and health activities, we have introduced labor safety and health management system "OHSAS18001" and accordingly receive an external certification.

This system helps us extract potential risks for labor disasters and sickness, share the information among all the employees and commit ourselves to eliminate labor disasters.

Our next goal is to attain ISO45001 certification, the internationally-standardized management system.

4. Labor safety and health education and trainings

Each base has a "Safety Dojo" to teach basics of safe operation to all the employees.



Iga plant

5. Initiatives to reduce labor disasters

- -Safety Sub Committees are organized in Manufacturing Headquarters and other sections, where the members make proposals to eliminate potential risks. They also report it at monthly Safety and Health Committees to share the ideas with other bases.
- -Contracted consultants for labor safety and health occasionally visit and evaluate each manufacturing base and give instructions for improvement. Their main focuses are dynamic factors of labor disasters, such as unstable postures and working procedures, as well as enforcement of 2S (Seiri Seiton, cleaning and organizing of working places).
- -We distribute "today's safety check point" regularly for daily KY (Kiken Yochi, danger prediction) activities.
- -In order to raise awareness of KY activities, service engineers in domestic Technical Centers put on KY board (safety declaration board) before starting maintenance operation at customers'.

6. Traffic safety activities

- -For traffic safety promotion and accident prevention, we hold an annual traffic safety seminar with the local police offices in Nara and Iga plants, both of which have a large number of car commuters.
- -For the service engineers in domestic Technical Centers, we track the record with drive recorders and encourage safe driving.
- -To enhance awareness for safety and accident prevention, we distribute "traffic safety slogan" monthly. -To promote safe driving, we equip all the company cars with drive recorders.

7. Initiatives to support health

- -We introduced "core-time system" to reduce overtime working hours. "Core-time system" allows each employee to flexibly set working hours based on their business schedule.
- -We conduct an annual stress assessment.
- -We conduct risk assessments of chemical materials to comprehend the existing poisonous materials and to minimize the amount.



The number of labor disasters

Supply chain management

We will: Work to increase the prosperity of our suppliers;

- From DMG MORI MISSION STATEMENT

An important instrument in sustainable value creation at DMG MORI is the management of the supply chain. We thus pay attention to compliance with environmental standards and social requirements in our supplier relationships.



DMG MORI Partner Award 2017: DMG MORI recognized five supply partners with the "Partner Award 2017" at the EMO Hannover – the leading trade fair worldwide for manufacturing technologies.

To take advantage of synergy effects, material group management for production materials is carried out jointly with DMG MORI AG. Due to the procurement of complex subassemblies, supplier management takes place with predominantly globally positioned system suppliers. They represent step one in the supply chain and at the same time take over both pre-assembly and the coordination with subsuppliers.

SAFEGUARDING AND MONITORING SUSTAINABILITY

Our Code of Conduct sets out the binding foundation for compliance with essential requirements as regards acting responsibly, as well as for environmental standards and social requirements for cooperation with new supply partners.

We expect our suppliers:

- to make a binding commitment to comply with our ethical and principle requirements prior to any cooperation
- to comply with our guiding principles
- to pass on these requirements in the supply chain

This process is an essential part of our purchasing guidelines.

In the event of a refusal to comply, or the suspicion of a breach of the ethical or principle requirements, an escalation process has been provided for in the purchasing guideline. This process determines how the partnership will continue, either by determining joint supplier development measures or even by terminating the cooperation. In addition to the purchasing guideline, sustainable procurement is also referred to in the DMG MORI purchasing terms and conditions. Furthermore, our purchasing terms and conditions set out the conservative use of natural resources as well as energy-saving and environmentally friendly procedures.

To verify these requirements, we offer our purchasers training courses focusing on compliance. This enables them to pay greater attention to sensitive and risky aspects in supplier management when screening new suppliers.

RISK MANAGEMENT AND ASSESSMENTS

In the case of global sourcing, in particular, and when selecting suppliers from Asia, we assess criteria regarding environmental standards and social requirements separately in the supplier selfassessment. This includes, for example, working times, employee wages, current environmental certificates, such as ISO14001, and the clear rejection of child labor. In the previous year, the purchasing volume for production materials from one new Asian suppliers totaled EUR 147,322. This is equivalent to a share of 9% of the purchasing volume of AG's all new suppliers of production materials. This supplier was screened on the basis of our supplier self-disclosure, which covers environmental standards and social requirements among others. A visit to the suppliers' premises did not reveal any evidence of breaches of the social requirements. A "global sourcing" team of purchasing and quality specialists deals with supplier information.

To assess the risk of our current direct suppliers, we use our early warning system "RISKMETHODS". Through this we are in a position to be informed proactively not only of the risk of creditworthiness, supply and quality performance, but also to be timely informed of risks relating to sustainability, such as violations of labor practices and human rights, or environmental risks. Should a risk occur in the supply chain, or with an individual supplier, those in charge will be informed proactively.

The early warning system facilitates a risk assessment on the basis of reports. The corresponding overall score per risk criterion is decisive and serves firstly as the basis for supplier talks with the aim of reducing the number of suppliers exposed to risk. Secondly, the score is included as a partial result in the overall supplier assessment. To record the effects for DMG MORI even more specifically and to reduce risks further, in financial year 2018 we will implement further IT solutions.

Social contributions

As an industry leader and responsible corporate citizen, we will: Contribute our fair share to our local community and society.

----- From DMG MORI MISSION STATEMENT



Contribution to technological development

DMG MORI lends or donates its machine tools worldwide to strengthen alliances with industrial and administrative partners and research institutes at universities, etc. and to support their application research activities. In addition, the company has established a scholarship fund and made donations to nurture talented engineers in Japan and overseas. Mori Manufacturing Research and Technology Foundation was established to conduct such corporate social responsibility activities of DMG MORI continuously by maintaining a designated business volume. The foundation has taken over the responsibility for the said activities from DMG MORI. We believe that the foundation's activities to provide continuous support for technology development and innovation of machine tools will strengthen the basis for sustainable growth of the machine tool industry as a whole. We also believe that human resources development through the alliances with research institutes worldwide will contribute to global industrial development including in emerging countries. Further, as a part of its social contribution activities, the foundation will strengthen the alliance with local communities by extending support for constructing a cultural environment with higher public value.

1) Support for research and development

Support for research and development of machine tools and related technologies is handled by DMG MORI, financial contributor to the foundation, through its joint research and development activities (*2) with universities and research institutes worldwide (*1). The main focus areas of the foundation are providing support for international academic conferences, etc.

2) Support for human resources development

The foundation took over responsibility for operation and management of "DMG MORI Scholarship Fund", which was established by both DMG MORI Co., Ltd. and

DMG MORI AG to support technical college students who suffered from the Great East Japan Earthquake in March 2011. In 2017, it made



Letter of appreciation from National Institute of Technology



3) Support for local communities and cultural activities The foundation's support for local communities and cultural activities is centered in Nara Prefecture, where DMG MORI was founded, and Iga City in Mie Prefecture, where company's main plant is located. In Yamato-Koriyama City of Nara, the birthplace of DMG MORI, it planted 140 cherry blossom trees alongside the Bodaisen River which runs close to Nara Campus in Idono-cho, Yamato-Koriyama City, and donated the trees to the city to create a beautiful landscape. In addition, DMG MORI sponsors various local events hosted by local communities in Yamato-Koriyama, Iga, and Nabari such as cherry blossom festivals, summer festivals, fireworks festivals, etc.



Cherry blossom trees alongside the Bodaisen river planted by DMG MORI

- (*1) University of Tokyo, Kyoto University, Keio University, University of California Berkeley and Davis (USA), University of Hannover (Germany), etc.
- (*2) Joint research and development projects on machining technologies, intelligence, network technologies, etc.



Support for research through MTTRF

http://www.mttrf.org/

In October 2002, DMG MORI and other companies inand outside of Japan established MTTRF (Machine Tool Technologies Research Foundation), a non-profit organization accredited by the US government. The head office of MTTRF is located in San Francisco, California, USA.

The objective of MTTRF is to develop researchers of machine tools and MTTRF provides latest machine tools, software, and research expenses to researchers and students of machine tools. The number of research institutes with sufficient budget to purchase machine tools at universities and to conduct researches by using their machine tools is very limited. This is why DMG MORI provides its cutting-edge 5-axis machine tools and millturn centers for research and education at universities worldwide. Students can always utilize the latest equipment for their researches.

Results of researches will be published in journals and presented at international conferences. At the MTTRF Annual Meeting, representatives of all the research institutes who use machine tools provided by MTTRF get together to present the progress of researches and share knowledge and technology. The annual meeting is also open to parties who are neither sponsor nor user of MTTRF's support to share research results among a wider range of participants.

Currently, following research institutes use machine tools provided for rent by MTTRF: Osaka Institute of Technology, Kanazawa University, Kobe University, Toyohashi University of Technology, ETH Zurich, K.U. Leuven, MTTRF Berkeley Institute, University of California Davis, University College Dublin, University of Firenze, University of North Carolina, Charlotte, University of Wisconsin-Madison, Vienna University of Technology.

Machine tools are advancing rapidly by incorporating control technologies, IoT, intelligence technologies and new structural materials. DMG MORI is committed to continue its social contribution activities by lending its latest machine tools through MTTRF to develop machine tool technology and nurture talented engineers.



Machine tools provided for rent at ETH Zurich and researchers



Machine tools provided for rent at Vienna University of Technology and researchers



MTTRF ANNUAL MEETING 2017

The Cutting Dream Contest

The Cutting Dream Contest has been held 12 times since 2004 to facilitate exchange and development of cutting technologies and techniques of the industry. Users of cutting machine tools at companies, technical colleges, universities, and research institutes in Japan are eligible participants. The contest started also in the U.S. in 2006, and we had one in Europe in 2007. The event has been well received and appreciated in both regions. The prize winners are selected by category through a rigorous screening process by juries comprised of university professors. The five categories of the contest are: Production Parts Machining, Prototype & Test Cut Machining, Die & Mold / Form Machining, Micro Machining and Academic Research. The award ceremony of the 12th Cutting Dream Contest was held in November 2016 on the sidelines of JIMTOF. Since then, the awarded work pieces are on display at the Iga Global Solution Center of DMG MORI. Every day, a lot of visitors from Japan and overseas enjoy the extraordinary techniques and innovative ideas represented by these work pieces.

Prize winners of the 12th Cutting Dream Contest



Birdman Rally

On Sunday, July 30, 2017, DMG MORI's Birdman Club "BIRDMAN HOUSE Iga" won the 40th Japan International Birdman Rally (hosted by Yomiuri Telecasting Corporation) at the edge of Biwako Lake in Shiga Prefecture by setting a new tournament record at the second appearance.

The team attended the Distance of Human-powered Propeller Airplane Category, and achieved a 40km round-trip flight - the longest distance ever achieved in the history of Birdman Rally. They clearly exceeded the





BIRDMAN HOUSE Iga in flight

The moment of victory

last year's own record of 17.8km. Audience welcomed the DMG MORI team flying back to the platform with standing ovations. It was the moment when all the members' dream came true.

In 2018, BIRDMAN HOUSE Iga will make another trial to achieve 60km distance flight under the new regulations of the rally. Further, the team will continue challenging the new world record (115km!) in compliance with IATA regulations.



Some metal parts of the airplane were produced by NHX4000, DMG MORI's machine tool.

Contributions to local communities

Cultural activities in Nara, the birthplace of DMG MORI

DMG MORI has put a great deal of value in interaction with the local community in Nara and promotion of culture for 70 years since its foundation in Yamato-Koriyama City, Nara in 1948. We continue to pro-actively support the traditional cultural activities in an effort to further strengthen ties with local communities

"Comprehensive Agreement on Partnership and Cooperation" with Nara Prefecture

DMG MORI concluded a comprehensive agreement with Nara Prefecture in March 2017 to promote landscaping appropriate to the ancient capital Nara, to facilitate advanced technical education and to support engineers and researchers from overseas. Within this framework,

List of Partnership activities:

- 1. For development of industry in Nara
- 2. For research and promotion of science and technologies
- 3. For promotion of science and technology education
- 4. For support of foreign scientist and researchers
- 5. For promotion of culture, arts, and sports
- For landscaping appropriate and desirable as ancient capital Nara to meet expectations from visitors and residents
- 7. For creating safe and secure local community

DMGMORI YAMATO KORIYAMAJO HALL

In January 2017, DMG MORI acquired the naming rights of the hall that has been familiar to the people of Yamato-Koriyama City, and named it "DMG MORI YAMATO KORIYAMAJO HALL."

Besides support to maintenance and improvement of the hall's facilities, the company is committed to make it a place for transmitting various cultures and to improve the quality of life of the people in the city.

Sponsorship of fireworks festivals in local communities

DMG MORI sponsors fireworks festivals hosted by local communities in Iga and Nara. We value ties to local administration and people and contribute to creating safe and secure communities.

DMG MORI takes pro-active actions including lending its cutting-edge machine tools to local technical high schools and other educational institutions and planting cherry blossom trees along the embankment of the Bodaisen River.



Conclusion of Comprehensive Agreement



Outside view



Fireworks at Iga summer festival
Cultural assets of ancient Nara

DMG MORI supports ancient capital Nara's historic monuments such as Kasuga Taisha Shrine and Kofukuji Temple.



Material credit: Kasuga Taisha Shrine

Material credit: Nara City Tourist Association (Kofukuji Temple)

Sports Marketing

DMG MORI sponsors two sports teams in Nara - "Bambitious Nara", a professional basketball team since 2014, and "NARA CLUB", a JFLsoccer team since 2017. In the area of motorsports, DMG MORI supports TOYOTA GAZOO Racing at the FIA World Rally Championship (WRC) since 2017 based on a partnership agreement with TOYOTA.







Material credit: NARA CLUB



TOYOTA GAZOO Racing Yaris WRC

Goodwill Award by Yamato-Koriyama City

In November, 2017, Yamato-Koriyama City convened the "Goodwill Award" ceremony in DMG MORI YAMATOKORIYAMAJYO HALL. This is an annual event to recognize individuals and groups who contributed to development of local industry and environment of Yamato-Koriyama. In 2017, Mori Manufacturing Research and Technology Foundation's project sponsored by DMG MORI to plant cherry blossom trees alongside the Bodaisen River received this honorable award. DMG MORI will continue to support local

communities especially in Nara Prefecture and Iga City in Mie Prefecture to construct cultural environment.



Support for Cultural Activities

Sponsorship of Piano Concerts

"Nara Piano Friends," a new music event featuring the piano, takes place annually in Nara and speciallysponsored by DMG MORI since 2012. The company also supports piano recitals by a Europe-based pianist Mr.



Nara Piano Friends

Adolfo Barabino living in the UK since 2015. Mr. Barabino was the first foreign artist who was invited to Nara Piano Friends in 2014, and gave a joint performance with several Japanese pianists from a wide variety of genres.



Adolfo Barabino Piano Recital

Transmitting Information from Perspective of "Tsunagari"

Since January 2012, DMG MORI publishes a public relations

magazine "Tsunagari," which means "connection", with the basic concept of interconnection between society and companies. In "Tsunagari" we not only look at the processes to produce goods and the history of these items, but also search for the ideal society from the perspective of "Tsunagari" as well as from a panoramic view. Also, design has a focus of appealing to emotion of people as an important element for linking humans to goods.



*Available in digital format on our website

Social and Local Contributions in Germany

DMG MORI AG, too, prioritizes contributions to society and local communities and conducts a wide range of projects.

DMG MORI gets involved locally. For that reason our locations (factories and solution centers) decide by themselves which projects they want to support and the form this should take. Another provision to be followed is that DMG MORI focuses on three target groups in its social commitment: employees, schools and universities, and charitable associations.

For its employees, for instance, DMG MORI encourages solutions to harmonize work and family life by offering flexible work hours and developing individual arrangements to achieve an optimum work-life balance. We support schools and universities through donations and cooperation by exchanging ideas and knowledge. We regularly take part in events such as "Girls Day" and "Future Day", and facilitate visits to our production sites for school children and students. In addition, we are heavily involved at all of our sites in local organizations and projects so as to actively form networks, and through these to be able to support the interests of the respective region. At German headquarters in Bielefeld and other German production sites, for example, DMG MORI sponsors projects in local communities in education, science, arts, culture and in encouraging young talent.

In 2017, we invested about EUR 450,000 in donations and sponsoring. In Bielefeld and Ostwestfalen-Lippe region, DMG MORI has been heavily involved for years as a sponsor for the Arminia Bielefeld football club. Moreover, we have sponsoring agreements with Bielefeld Marketing GmbH and Bielefeld Kunstverein (arts association).

The donations were made nearly exclusively to the benefit of local associations and institutions, as well as to universities such as RWTH Aachen University and to fostering young talents. Many employees also dedicate their time and efforts to charitable causes and support DMG MORI in its social activities.

DMG MORI AG, too, dedicated its worldwide Christmas campaign to a good cause and donated EUR 15,000 to the Good Hope Centre e.V. (Halle, Westphalia) a charitable society supporting disadvantaged children in Tanzania.





Good Hope Centre e.V.: The charitable society supports disadvantaged children in Tanzania and runs several primary schools there.



FUTURE DAY 2017: More than 500 school children discovered the potential of up-to-date apprenticeships available at DMG MORI

IR activity

DMG MORI's basic approach is to always pay attention to expectations from shareholders and society, and to take actions for higher accountability. This is our base for information disclosure and IR activities including communication with shareholders, investors and other parties.

Every year, we invite individual shareholders to our Solution Centers in Iga Campus and Tokyo Global Headquarters (totaling to 2 events per year). Shareholders have opportunities to look at the latest machine tools and to better understand DMG MORI's technologies and efforts. We recognize Fair Disclosure as an integral part of our IR activity. We always publish information for investors both in Japanese and English. We also proactively disclose information from CSR point of view in addition to financial information, which is usually required by regulations. In 2017, we conducted more than 230 meetings with investors.



Individual shareholders visiting DMG MORI

| Activities | Details |
|---|--|
| Visits by individual shareholders | Every year, we invite individual shareholders to our Solution Centers in Iga Campus and Tokyo Global Headquarters (totaling to 2 events per year). Results are shared in the Shareholders' Newsletter. |
| Meetings for financial analysts and institutional investors | Twice a year face-to-face meetings following disclosure of mid-term and full-year results. Additionally, twice a year phone-conferences after disclosure of the 1st and 3rd Quarter results. |
| Meetings for institutional investors outside of Japan | An Operating Officer dedicated for IR holds individual meetings with investors in Europe (twice a year), Americas (twice a year), and Asia (4 times a year). |
| Disclosure of IR documents on company's website | Disclosure of IR documents in both Japanese and English on company's website (https:// www.dmgmori.co.jp/corporate/ir/) after closing of each quarter and as necessary. |

■ Major IR activities in 2017

Communications with institutional investors in 2017



FINANCIAL SECTION

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Consolidated Financial Highlights

| | Billions of yen | | Millions of U.S. dollars*12 | | | | | | |
|--|-----------------|-----------------|--------------------------------|---------------------|-----------------|------------------------|------------------------|--|--|
| Ended 31st March 2014 and 2015 Ended 31st December 2015, 2016 and 201 | 7 | Japanese GAAP*1 | | IFRS | | | | | |
| | | 2014/3 | 2015/3 *2 | 2015/12 *2,3,4,5 | 2016/12 *2,3 | 2017/12 *2,3 | 2017/12 *2,3 | | |
| Financial Performance | | | | | | | | | |
| Sales revenues | | 160.7 | 174.4 | 318.4 | 376.6 | 429.7 | 3,802 | | |
| Operating result | | 9.4 | 18.2 | 31.1 | 2.0 | 29.4 | 260 | | |
| Earnings (loss) before income taxes | | 11.4 | 23.1 | 29.7 | (1.1) | 24.8 | 219 | | |
| Profit (loss) attributable to owners of the | e parent | 9.4 | 17.1 | 26.9 | (7.8) | 15.3 | 135 | | |
| Profitability Ratio | | | | | | | | | |
| Return on investment (ROI) (%) | *6 | 5.1 | 7.6 | 9.7 | 0.6 | 9.5 | | | |
| Return on equity (ROE) (%) | *7,8 | 7.4 | 10.9 | 17.0 | (6.1) | 14.7 | | | |
| Return on total assets (ROA) (%) | *9 | 4.4 | 6.0 | 5.8 | (1.4) | 2.7 | | | |
| Financial Position | | | | | | | | | |
| Total assets | | 241.7 | 323.8 | 598.0 | 558.2 | 567.4 | 5,021 | | |
| Shareholders' equity | *7,10 | 151.3 | 162.0 | 155.3 | 100.4 | 107.6 | 952 | | |
| Cash Flows | | | | | | | | | |
| Net cash flows from operating activities | | 5.9 | 7.3 | 18.6 | 18.2 | 31.4 | 278 | | |
| Net cash flows used in investing activitie | es | (17.5) | (58.7) | (26.9) | (10.0) | (1.4) | (12) | | |
| Net cash flows from (used in) financing | activities | 23.9 | 53.6 | 71.9 | (18.4) | (37.7) | (334) | | |
| Free cash flow | *11 | (11.6) | (51.3) | (8.3) | 8.2 | 30.0 | 265 | | |
| Number of Employees | | 4,159 | 4,324 | 12,230 | 12,307 | 12,375 | | | |

The figures [] indicates the minus sign. The stated financial figures are based on the securities report but are not audited by audit corporations, etc.
1 Itemization in accordance with International Financial Reporting Standards [IFRS].
2 Starting from the fiscal period ended 31st December, 2015, IFRS has been voluntarily adopted.
3 Starting from the fiscal period ended 31st March, 2015, the consolidated financial data are presented in accordance with IFRS.
4 The fiscal period ended 31st December, 2015 is a period of nine months only due to the change in the fiscal period-end.
*5 From the fiscal period ended 31st December, 2015, the Company's accounts are consolidated with those of DMG MORI AG.
*6 Return on investment [R01] (%) = Operating result / Average equity + Average interest-bearing debt / 100
*7 Under IFRS, shareholders' equity is shown as equity attributable to owners of the parent (including hybrid capital).
*8 Return on equity [R0E] (%) = Profit attributable to owners of the parent company / Average total assets × 100
*10 Shareholders' equity = Total equity - Stock acquisition rights - Non-controlling interests
*11 Free cash flow = Net cash flows from operating activities + Net cash flows from investing activities
*12 The accompanying U.S. dollar amounts have been translated from yen, solely for convenience, as a matter of arithmetic computation only, at ¥113 = U.S.\$1.00, the exchange rate prevailing on 31st December, 2017.

Financial Summary

The following is an analysis of our financial situation, business results and cash flows during the fiscal year ended 31st December, 2017.

Analysis of Financial Position

(1) Assets

Current assets totaled 267,979 million yen (\$2,371,496 thousand), mainly due to increase of 9,733 million yen in trade and other receivables, while Cash and cash equivalents decreased by 2,777 million yen.

Non-current assets stood at 299,431 million yen (\$2,649,832 thousand), mainly due to increases of 7,706 million yen in goodwill and 2,969 million yen in other intangible assets, while Other financial assets decreased by 4,314 million yen and Property, plant and equipment decreased by 3,458 million yen.

As a result, total assets stood at 567,411 million yen (\$5,021,336 thousand).

(2) Liabilities

Current liabilities totaled 159,958 million yen (\$1,415,558 thousand). This mainly reflected decreases of 23,307 million yen in interest-bearing bonds and borrowings and 10,938 million yen in other financial liabilities, while increase of 19,013 million yen in advances received.

Non-current liabilities amounted to 297,433 million yen (\$2,632,150 thousand), this primarily reflected increases of 26,083 million yen in other financial liabilities, while Interest-bearing bonds and borrowings decreased by 4,113 million yen.

As a result, total liabilities stood at 457,391 million yen (\$4,047,708 thousand).

(3) Equity

Equity totaled 110,019 million yen (\$973,619 thousand) mainly due to decreases of 14,042 million yen in treasury shares and 8,636 million yen in retained earnings.

Analysis of Business Results

(1) Sales revenues

Sales revenues for the fiscal year amounted to 429,664 million yen (\$3,802,336 thousand) (14.1% increase from the previous year). The share of sales by segment was 72.6% for machine tools and 27.4% for industrial services, while the share of sales by region was 15.3% for Japan, 23.3% for Germany, 18.3% for the Americas, 33.0% for Europe other than Germany, and 10.1% for China and Asia.

(2) Costs

Costs for the fiscal year totaled 412,301 million yen (\$3,648,681 thousand) (7.4% increase from the previous year). The main components included 189,000 million yen (\$1,672,556 thousand) (14.1% increase from the previous year) for costs of raw materials, consumables and goods for resale, 120,728 million yen (\$1,068,389 thousand) (5.8% increase from the previous year) for personnel costs, and 18,344 million yen (\$162,336 thousand) (3.7% increase from the previous year) for depreciation and amortization.

(3) Operating result

In the fiscal year, the operating result came to 29,391 million yen (\$260,097 thousand) (1,398% increase from the previous year). By segment, the machine tools segment posted

Sales revenues (Billions of yen)



Operating result (Billions of yen) Ratio of operating result to sales revenues (%)

Operating result



Profit attributable to owners of the parent company (Billions of yen) Ratio of annual profit to sales revenues (%)

Profit attributable to owners of the parent company
 Ratio of annual profit to sales revenues



operating income of 31,407 million yen (\$277,938 thousand) (169.1% increase from the previous year) and the industrial services segment posted operating income of 9,087 million yen (\$80,416 thousand) (411.4% increase from the previous year).

(4) Net income or loss

Earnings before income taxes for the fiscal year amounted to 24,803 million yen (\$219,496 thousand) (In the previous fiscal year, loss before income taxes of 1,064 million yen).

Following the application of tax effect accounting, income taxes came to 9,127 million yen (\$80,770 thousand), an increase of 4,443 million yen from 4,684 million yen in the previous year.

As a result, the net income totaled 15,676 million yen (\$138,726 thousand) (net loss of 5,749 million yen in the previous fiscal year), and income attributable to owners of the parent came to 15,263 million yen (\$135,071 thousand) (loss attributable to the owner of the parent of 7,826 million yen in the previous fiscal year).

Analysis of Cash Flows

(1) Cash flows from operating activities

Net cash flows from operating activities totaled 31,423 million yen (\$278,080 thousand). The main positive factors were 24,803 million yen (\$219,496 thousand) of Earnings before income taxes, 18,344 million yen (\$162,336 thousand) in depreciation and amortization, 4,649 million yen (\$41,142 thousand) in financial income and costs, and a decrease of 5,324 million yen (\$47,115 thousand) in inventories. The main

negative factors were 5,502 million yen (\$48,690 thousand) of Other non-cash transactions, increase of 6,601 million yen (\$58,416 thousand) in trade and other receivables, and decrease of 9,872 million yen (\$87,363 thousand) in Trade and other payables and income taxes paid of 9,703 million yen (\$85,867 thousand).

(2) Cash flows from investing activities

Net cash flows used in investing activities came to 1,387 million yen (\$12,274 thousand). The main positive item was 8,001 million yen (\$70,805 thousand) in proceeds from sales of financial instruments, while the main negative factors were 5,895 million yen (\$52,168 thousand) for purchases of property, plant and equipment and 3,488 million yen (\$30,867 thousand) for purchases of intangible assets.

(3) Cash flows from financing activities

Net cash flows used in financing activities amounted to 37,726 million yen (\$333,858 thousand). The main positive contributions were 65,372 million yen (\$578,513 thousand) in proceeds from non-current borrowings, and 14,838 million yen (\$131,310 thousand) of Proceeds from issue of debt instruments. The main negative factors were 87,489 million yen (\$774,239 thousand) in payments for non-current borrowings, 20,000 million yen (\$176,991 thousand) in redemption of bonds, and 5,251 million yen (\$46,469 thousand) in Acquisition of treasury shares.

As a result, cash and cash equivalents as of 31st December, 2017, stood at 64,973 million yen (\$574,982 thousand), a decrease of 2,777 million yen from 31st December, 2016.

Total assets (Billions of yen) Return on total assets (ROA) (%)



Shareholders' equity (Billions of yen) Return on equity (ROE) (%)



Free cash flow (Billions of yen)



Consolidated Statement of Financial Position

| | Millior | Millions of yen | | |
|--|-------------------------|-------------------------|-------------------------|--|
| | 2017 (31st December) | 2016 (31st December) | 2017 (31st December) | |
| Assets | | | | |
| Current assets: | | | | |
| Cash and cash equivalents (Notes 7 and 24) | ¥ 64,973 | ¥ 67,750 | \$ 574,982 | |
| Trade and other receivables (Notes 8 and 24) | 60,741 | 51,008 | 537,531 | |
| Other financial assets (Notes 12 and 24) | 8,652 | 8,228 | 76,566 | |
| Inventories (Note 9) | 122,981 | 122,172 | 1,088,327 | |
| Other current assets | 10,629 | 10,823 | 94,062 | |
| Total current assets | 267,979 | 259,983 | 2,371,496 | |
| Non-current assets: | | | | |
| Property, plant and equipment (Note 10) | 133,983 | 137,441 | 1,185,690 | |
| Goodwill (Note 11) | 73,347 | 65,641 | 649,088 | |
| Other intangible assets (Note 11) | 69,315 | 66,346 | 613,407 | |
| Other financial assets (Notes 12 and 24) | 8,996 | 13,310 | 79,611 | |
| Investments in associates and joint ventures (Note 13) | 2,229 | 1,987 | 19,726 | |
| Deferred tax assets (Note 20) | 6,082 | 5,809 | 53,823 | |
| Other non-current assets | 5,476 | 7,701 | 48,460 | |
| Total non-current assets | 299,431 | 298,238 | 2,649,832 | |
| Total assets | ¥ 567,411 | ¥ 558,222 | \$5,021,336 | |

| | Million | s of yen | Thousands of U.S. dollars (Note 2) | |
|---|----------|----------|------------------------------------|--|
| | 2017 | 2016 | 2017 | |
| Liabilities | | | | |
| Current liabilities: | | | | |
| Trade and other payables (Notes 14 and 24) | ¥ 47,717 | ¥ 55,861 | \$ 422,274 | |
| Interest-bearing bonds and borrowings (Notes 15 and 24) | 22,653 | 45,960 | 200,469 | |
| Advances received | 45,696 | 26,683 | 404,389 | |
| Other financial liabilities(Notes 16, 24 and 34) | 3,857 | 14,796 | 34,133 | |
| Accrued income taxes | 4,002 | 5,409 | 35,416 | |
| Provisions (Note 19) | 29,886 | 26,045 | 264,478 | |
| Other current liabilities | 6,144 | 5,505 | 54,372 | |
| Total current liabilities | 159,958 | 180,261 | 1,415,558 | |
| Non-current liabilities: | | | | |
| Interest-bearing bonds and borrowings (Notes 15 and 24) | 156,706 | 160,820 | 1,386,779 | |
| Other financial liabilities (Notes 16, 24 and 34) | 120,907 | 94,824 | 1,069,973 | |
| Net employee defined benefit liabilities (Note 18) | 6,254 | 6,200 | 55,345 | |
| Provisions (Note 19) | 3,973 | 4,088 | 35,159 | |
| Deferred tax liabilities (Note 20) | 7,844 | 7,309 | 69,416 | |
| Other non-current liabilities | 1,746 | 2,234 | 15,451 | |
| Total non-current liabilities | 297,433 | 275,477 | 2,632,150 | |
| Total liabilities | 457,391 | 455,739 | 4,047,708 | |
| Equity (Note 21) | | | | |
| Subscribed capital | 51,115 | 51,115 | 452,345 | |
| Capital surplus | - | - | - | |
| Hybrid capital | 49,505 | 49,505 | 438,097 | |
| Treasury shares | (9,726) | (23,769) | (86,071) | |
| Retained earnings | 26,227 | 34,863 | 232,097 | |
| Other components of equity | (9,504) | (11,266) | (84,106) | |
| Equity attributable to owners of the parent | 107,617 | 100,449 | 952,363 | |
| Non-controlling interests | 2,402 | 2,033 | 21,257 | |
| Total equity | 110,019 | 102,482 | 973,619 | |
| Total liabilities and equity | ¥567,411 | ¥558,222 | \$5,021,336 | |

Consolidated Statement of Profit or Loss

Fiscal year ended 31st December, 2017

| | Million | is of yen | Thousands of U.S. dollars (Note 2) |
|---|--|--|--|
| | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year ended 31st December, 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) |
| Revenues: | | | |
| Sales revenues (Note 25) | ¥429,664 | ¥376,631 | \$3,802,336 |
| Other operating revenues (Note 26) | 12,028 | 9,175 | 106,442 |
| Total revenue | 441,692 | 385,806 | 3,908,779 |
| Costs: | | | |
| Changes in merchandise, finished goods and work in progress for sale | 5,578 | 5,604 | 49,363 |
| Costs of raw materials, consumables and goods for resale (Note 9) | 189,000 | 165,662 | 1,672,566 |
| Personnel costs (Note 28) | 120,728 | 114,121 | 1,068,389 |
| Depreciation and amortization (Notes 10 and 11) | 18,344 | 17,691 | 162,336 |
| Other operating costs (Notes 10 and 27) | 78,650 | 80,765 | 696,018 |
| Total costs | 412,301 | 383,845 | 3,648,681 |
| Operating result | 29,391 | 1,961 | 260,097 |
| Financial income (Note 29) | 647 | 711 | 5,726 |
| Financial costs (Notes 30 and 34) | 5,297 | 3,935 | 46,876 |
| Share of profits of associates and joint ventures accounted for using equity method (Note 13) | 62 | 196 | 549 |
| Earnings (loss) before income taxes | 24,803 | (1,064) | 219,496 |
| Income taxes (Note 20) | 9,127 | 4,684 | 80,770 |
| Net income (loss) | ¥ 15,676 | ¥ (5,749) | \$ 138,726 |
| Profit (loss) attributable to: | | | |
| Owners of the parent | ¥ 15,263 | ¥ (7,826) | \$ 135,071 |
| Non-controlling interests | 412 | 2,077 | 3,646 |
| Net income (loss) | ¥ 15,676 | ¥ (5,749) | \$ 138,726 |
| | | | |
| | | | |

| Earnings (loss) per share | Ye | en | U.S. dollars |
|---------------------------|----------|-----------|--------------|
| Basic (Note 32) | ¥ 116.44 | ¥ (67.80) | \$ 1.03 |
| Diluted (Note 32) | ¥ 115.59 | ¥ (67.80) | \$ 1.02 |

Consolidated Statement of Comprehensive Income

Fiscal year ended 31st December, 2017

| | Million | Millions of yen | | | | |
|--|--|--|--|--|--|--|
| | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year ended 31st December, 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) | | | |
| Net income (loss) | ¥15,676 | ¥ (5,749) | \$138,726 | | | |
| Other comprehensive income (loss): | | | | | | |
| Items that will not be reclassified subsequently to profit or loss: | | | | | | |
| Remeasurements of defined benefit plans | (129) | (120) | (1,142) | | | |
| Subtotal | (129) | (120) | (1,142) | | | |
| Items that may be reclassified subsequently to profit or loss: | | | | | | |
| Exchange differences on translation of foreign operations | 4,044 | (20,099) | 35,788 | | | |
| Effective portion of changes in fair value of cash flow hedge | (31) | (67) | (274) | | | |
| Changes in fair value measurements of available-for-sale financial assets | (2,602) | (1,734) | (23,027) | | | |
| Share of other comprehensive income (loss) of associates accounted for using equity method | 18 | (0) | 159 | | | |
| Subtotal | 1,428 | (21,901) | 12,637 | | | |
| Total other comprehensive income (loss) for the period (Note 31) | 1,298 | (22,022) | 11,487 | | | |
| Comprehensive income (loss) | ¥16,974 | ¥(27,771) | \$150,212 | | | |
| Comprehensive income (loss) attributable to: | | | | | | |
| Owners of the parent | 16,566 | (22,412) | 146,602 | | | |
| Non-controlling interests | 408 | (5,359) | 3,611 | | | |
| Total | ¥16,974 | ¥(27,771) | \$150,212 | | | |

Consolidated Statement of Changes in Equity Fiscal year ended 31st December, 2017

| | | | | | | Millio | ons of yen | | | | |
|--|-----------------------|--------------|------------|----------------|--------------------|------------|------------------|---|----------|----------------------------------|--------------|
| | | | Eq | uity attributa | ble to ow | ners of | the par | ent | | | |
| | Subscribed capital | Capi surp | tal lus | Hybrid capital | Treasury shares | / Re ea | tained rnings | Other components of equity (Note 21) | Subtotal | Non- controlling interests | Total equity |
| As at 1st January, 2016 | ¥51,115 | ¥53, | 057 | ¥ – | ¥(23,76 | 8) ¥7 | 71,466 | ¥ 3,399 | ¥155,270 | ¥76,837 | ¥232,107 |
| Net loss | - | | _ | - | | - | (7,826) | - | (7,826) | 2,077 | (5,749) |
| Other comprehensive loss | - | | - | - | | - | - | (14,585) | (14,585) | (7,436) | (22,022) |
| Total comprehensive loss | - | | - | - | | - | (7,826) | (14,585) | (22,412) | (5,359) | (27,771) |
| Issue of hybrid capital (Note 21) | - | | - | 50,000 | | - | - | - | 50,000 | - | 50,000 |
| Issue cost of hybrid capital (Note 21) | - | | - | (494) | | - | - | - | (494) | - | (494) |
| Payment to the owner of hybrid capital | - | | - | - | | - | - | - | - | - | - |
| Acquisition of treasury shares (Note 21) | - | | - | - | (| [0] | - | - | (0) | - | (0) |
| Cancellation of treasury shares | - | | - | - | | - | - | - | - | - | - |
| Disposition of treasury shares (Note 21) | - | | (0) | - | | 0 | - | - | 0 | - | 0 |
| Cash dividends (Note 22) | - | | - | - | | - | (3,121) | - | (3,121) | (1,402) | (4,523) |
| Share-based payments (Note 23) | - | | - | - | | - | - | 83 | 83 | - | 83 |
| Changes due to business combinations | - | | - | - | | - | - | - | - | 65 | 65 |
| Transfers | - | | - | - | | - | 164 | (164) | - | - | - |
| Total transactions with owners of the parent | - | | (0) | 49,505 | (| [0] | (2,956) | (80) | 46,468 | (1,336) | 45,131 |
| Acquisition of non-controlling interests | - | (32 | ,552) | - | | - | - | - | (32,552) | (28,990) | (61,543) |
| Payment obligation for non-controlling interests (Note 34) | - | (20 | 505) | - | | - (2 | 25,819) | - | (46,325) | (39,116) | (85,441) |
| Changes in ownership interests in subsidiaries and others | - | (53 | 057) | - | | - (2 | 25,819) | - | (78,877) | (68,107) | (146,984) |
| As at 31st December, 2016 | ¥51,115 | ¥ | - | ¥49,505 | ¥(23,76 | 9) ¥3 | 34,863 | ¥(11,266) | ¥100,449 | ¥ 2,033 | ¥102,482 |
| Net income | ¥ - | ¥ | - | ¥ - | ¥ | - ¥1 | 5,263 | ¥ - | ¥ 15,263 | ¥ 412 | ¥ 15,676 |
| Other comprehensive income | - | | - | - | | - | - | 1,302 | 1,302 | (4) | 1,298 |
| Total comprehensive income | - | | - | - | | - 1 | 5,263 | 1,302 | 16,566 | 408 | 16,974 |
| Issue of hybrid capital | - | | - | - | | - | _ | - | - | - | - |
| Issue cost of hybrid capital | - | | - | - | | - | - | - | - | - | - |
| Payment to the owner of hybrid capital (Note 21) | - | | - | - | | - 1 | [1,069] | - | (1,069) | - | (1,069) |
| Acquisition of treasury shares (Note 21) | - | | - | - | (5,25 | 1) | - | - | (5,251) | - | (5,251) |
| Cancellation of treasury shares (Note 21) | - | (12, | 847) | - | 12,84 | 7 | - | - | - | - | - |
| Disposition of treasury shares (Note 21) | - | (6, | 442) | - | 6,44 | 6 | - | - | 3 | - | 3 |
| Cash dividends (Note 22) | - | | - | - | | - 1 | (3,405) | - | (3,405) | (57) | (3,462) |
| Share-based payments (Note 23) | - | | - | - | | - | - | 328 | 328 | - | 328 |
| Changes due to business combinations | - | | - | - | | - | (5) | - | (5) | 18 | 13 |
| Transfers | - | | - | - | | - 1 | 9,419 | 129 | - | - | - |
| Total transactions with owners of the parent | - | | 0 | - | 14,04 | 2 (2 | 3,899) | 458 | (9,398) | (39) | (9,437) |
| Acquisition of non-controlling interests | - | | (0) | - | | - | - | - | (0) | (0) | (0) |
| Payment obligation for non-controlling interests | - | | - | - | | - | - | - | - | - | - |
| Changes in ownership interests in subsidiaries and others | - | | (0) | - | | - | - | - | (0) | (0) | (0) |
| As at 31st December, 2017 | ¥51,115 | ¥ | - | ¥49,505 | ¥(9,72 | 6) ¥2 | 26,227 | ¥(9,504) | ¥107,617 | ¥2,402 | ¥110,019 |

| | | | | Thousand | s of U.S. dollars | s (Note 2) | | | |
|--|-----------------------|---|----------------|--------------------|----------------------|---|-----------|----------------------------------|--------------|
| | | Equity attributable to owners of the parent | | | | | | | |
| | Subscribed capital | Capital surplus | Hybrid capital | Treasury shares | Retained earnings | Other components of equity (Note 21) | Subtotal | Non- controlling interests | Total equity |
| As at 1st January, 2017 | \$452,345 | \$ - | \$438,097 | \$(210,345) | \$308,522 | \$(99,699) | \$888,929 | \$17,991 | \$906,920 |
| Net income | - | - | - | - | 135,071 | - | 135,071 | 3,646 | 138,726 |
| Other comprehensive income | - | - | - | - | - | 11,522 | 11,522 | (35) | 11,487 |
| Total comprehensive income | - | - | - | - | 135,071 | 11,522 | 146,602 | 3,611 | 150,212 |
| Issue of hybrid capital | - | - | - | - | - | - | - | - | - |
| Issue cost of hybrid capital | - | - | - | - | - | - | - | - | - |
| Payment to the owner of hybrid capital (Note 21) | - | - | - | - | (9,460) | - | (9,460) | - | (9,460) |
| Acquisition of treasury shares (Note 21) | - | - | - | (46,469) | - | - | (46,469) | - | (46,469) |
| Cancellation of treasury shares (Note 21) | - | (113,690) | - | 113,690 | - | - | - | - | - |
| Disposition of treasury shares (Note 21) | - | (57,009) | - | 57,044 | - | - | 27 | - | 27 |
| Cash dividends (Note 22) | - | - | - | - | (30,133) | - | (30,133) | (504) | (30,637) |
| Share-based payments (Note 23) | - | - | - | - | - | 2,903 | 2,903 | - | 2,903 |
| Changes due to business combinations | - | - | - | - | (44) | - | (44) | 159 | 115 |
| Transfers | - | 170,708 | - | - | (171,850) | 1,142 | - | - | - |
| Total transactions with owners of the parent | - | 0 | - | 124,265 | (211,496) | 4,053 | (83,168) | (345) | (83,513) |
| Acquisition of non-controlling interests | - | (0) | - | - | - | - | (0) | (0) | (0) |
| Payment obligation for non-controlling interests (Note 34) | - | - | - | - | - | - | - | - | - |
| Changes in ownership interests in subsidiaries and others | - | (0) | - | - | - | - | (0) | (0) | (0) |
| As at 31st December, 2017 | \$452,345 | \$ - | \$438,097 | \$ (86,071) | \$232,097 | \$(84,106) | \$952,363 | \$21,257 | \$973,619 |

Consolidated Statement of Cash Flows

Fiscal year ended 31st December, 2017

| | Million | Millions of yen | | |
|--|--|--|--|--|
| | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year ended 31st December, 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year ended 31st December, 2017 (1st January, 2017 through 31st December, 2017) | |
| Cash flows from operating activities: | | | | |
| Earnings (loss) before income taxes | ¥24,803 | ¥ (1,064) | \$219,496 | |
| Depreciation and amortization | 18,344 | 17,691 | 162,336 | |
| Loss on sales or disposal of property, plant and equipment | 470 | 716 | 4,159 | |
| Financial income and costs | 4,649 | 3,223 | 41,142 | |
| Share of profits of associates and joint ventures accounted for using equity method | (62) | (196) | (549) | |
| Other non-cash transactions | (5,502) | 4,188 | (48,690) | |
| Changes in asset and liability items: | | | | |
| Inventories | 5,324 | 2,065 | 47,115 | |
| Trade and other receivables | (6,601) | 1,331 | (58,416) | |
| Trade and other payables | (9,872) | (7,480) | (87,363) | |
| Provisions | 247 | 2,086 | 2,186 | |
| Other | 13,982 | 4,110 | 123,735 | |
| Subtotal | 45,783 | 26,672 | 405,159 | |
| Interest received | 393 | 373 | 3,478 | |
| Dividends received | 254 | 341 | 2,248 | |
| Interest paid | (5,305) | (3,049) | (46,947) | |
| Income tax paid | (9,703) | (6,100) | (85,867) | |
| Net cash flows from operating activities | 31,423 | 18,237 | 278,080 | |
| Cach flows from investment activities. | | | | |
| Purchases of property plant and equipment | (5.895) | (11 607) | (52 148) | |
| Proceeds from sales of property, plant and equipment | 1 882 | 1 507 | 16 655 | |
| Purchases of intangible assets | (3.488) | [3,634] | (30,867) | |
| Acquisition of subsidiaries, net of cash acquired | (649) | (1.047) | (5.743) | |
| Acquisition of financial instruments | (1.616) | (139) | (14.301) | |
| Proceeds from sales of financial instruments | 8,001 | 4,963 | 70,805 | |
| Other | 378 | (50) | 3,345 | |
| Net cash flows from investing activities | (1,387) | (10,008) | (12,274) | |
| | | | | |
| Net increase (decrease) in current herrowings | ¥ 17 | V(E0 070) | ¢150 | |
| Draceeds from non-surrout borrowings | + 1/ | +(30,770) | \$130 E70 E12 | |
| Proceeds from non-current borrowings | (07 / 00) | (14 745) | 576,513 (777, 220) | |
| Proceeds from issuance of honds | (07,407) | 29 872 | (774,237) | |
| Redemption of bonds | (20,000) | (15,000) | (176,991) | |
| Dividends paid | (3.403) | (3,118) | (30,115) | |
| Dividends paid to non-controlling interests | (57) | (1,392) | (504) | |
| Acquisition of non-controlling interests | (0) | (61,543) | (0) | |
| Acquisition of treasury shares | (5,251) | (0) | (46,469) | |
| Payments for obligations for non-controlling interests | (11) | (267) | (97) | |
| Proceeds from issuance of hybrid capital (Note 21) | - | 49,505 | - | |
| Payments for the owners of hybrid capital (Note 21) | (1,069) | - | (9,460) | |
| Proceeds from issuance of debt instruments (Note 16) | 14,838 | - | 131,310 | |
| Others | (670) | (558) | (5,929) | |
| Net cash flows from financing activities | (37,726) | (18,376) | (333,858) | |
| Effect of exchange rate changes on cash and cash equivalents | 4,913 | (5,678) | 43,478 | |
| (Decrease) increase in cash and cash equivalents | (2,777) | (15,826) | (24,575) | |
| Cash and cash equivalents at the beginning of period | 67,750 | 83,577 | 599,558 | |
| Cash and cash equivalents at the end of period (Note 7) | ¥64,973 | ¥ 67,750 | \$574,982 | |

Notes to Consolidated Financial Statements

Fiscal year ended 31st December, 2017

1. Reporting Entity

DMG MORI CO., LTD. (the "Company") is a company established under the Corporation Law of Japan (the "Law"). The Company is domiciled in Japan and its registered head office is located at 106 Kitakoriyama-cho, Yamato-Koriyama City, Nara.

The consolidated financial statements of the Company as of and for the year ended 31st December, 2017 comprise the Company, its subsidiaries and associates, and equity interests in related companies (collectively, the "Group"). The Group engages in businesses related to manufacturing and sales of machine tools (machining centers, turning centers, turn-mill complete machining), software (user interface, Technology Cycles and embedded software) and measuring devices, and provides total solutions utilizing the machine tools, software and measuring devices with service support, applications and engineering.

2. Basis of Preparation

(1) Accounting standards adopted

The consolidated financial statements of the Group have been prepared in accordance with International Financial Reporting Standards ("IFRS"), pursuant to the provisions set forth in Article 93 of the Ordinance on Terminology, Forms, and Preparation Methods of Consolidated Financial Statements (Ordinance of the Ministry of Finance No. 28 of 1976), as the Group meets the requirements for a "Specified Company" prescribed in Article 1-2 of said ordinance.

(2) Basis of measurement

As stated below in Note 3, "Significant Accounting Policies," the consolidated financial statements have been prepared on a historical cost basis, with the main exception of financial instruments, which are measured at fair value.

(3) Functional and presentation currency

The consolidated financial statements are presented in Japanese yen, which is the Company's functional currency. All financial information presented in Japanese yen has been rounded down to the nearest million, unless otherwise stated.

The translation of Japanese yen amounts to U.S. dollar amounts is included solely for the convenience of readers

3. Significant Accounting Policies

The significant accounting policies of the Group are applied continuously to all the periods indicated in the consolidated financial statements, unless otherwise stated.

(1) Basis of consolidation

All financial statements included in the consolidated financial statements are prepared as of 31st December, 2017, in accordance with the unified accounting policies and, when necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those of the Group.

(2) Business combinations

Business combinations are accounted for using the acquisition method. The consideration transferred for the acquisition of a business is the aggregate of the acquisition

outside Japan, using the prevailing exchange rate of ¥113.00 to U.S. \$1.00 at 31st December, 2017. This translation should not be construed as a representation that the Japanese yen amounts have been, could have been or could in the future be, converted into U.S. dollars at the above or any other rate.

(4) Approval of consolidated financial statements

The consolidated financial statements of the Group were approved at the Board of Directors' meeting of the Company held on 22th March, 2018.

(5) Changes in accounting policies

In the reporting period, the Group adopted the following new and revised standards. With the adoption of these standards, there has been no material impact to the consolidated financial statements.

| | IFRS | Description of new accounting standards and amendments |
|-------|--------------------------|--|
| IAS 7 | Disclosure Initiative | Amendments to the disclosure requirements regarding changes in an entity's financing liabilities arising from both cash flow and non-cash flow items |

date fair value of the assets transferred, the equity interests issued by the Group and the liabilities incurred, including the fair value of any assets or liabilities resulting from a contingent consideration arrangement.

Identifiable assets acquired and liabilities and contingent liabilities assumed resulting from a business combination are, in principle, measured at fair value at the acquisition date.

In a business combination achieved in stages, any previously held equity investment before obtaining control is remeasured at its acquisition-date fair value and any resulting gain or loss is recognized in profit or loss.

For each business combination, the Group chooses the method of measurement of non-controlling interests, which can be measured using one of two bases, either at fair value at the acquisition date or at the non-controlling interest's proportionate share of the acquiree's net identifiable assets. Acquisition-related costs are expensed as incurred.

Any excess of the consideration transferred over the fair value of the identifiable assets acquired and liabilities assumed is recognized as goodwill in the consolidated statement of financial position.

Goodwill is allocated to a cash generating unit ("CGU") or group of CGUs that are expected to benefit from synergies of the combination. If this is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in profit or loss. Goodwill is not amortized in accordance with IFRS 3 "Business Combinations" and IAS 36 "Impairment of Assets."

Equity in a subsidiary not attributable, directly or indirectly, to a parent is recognized as non-controlling interest. Total comprehensive income is attributed to the owners of the parent and to the non-controlling interest even if this results in the non-controlling interest having a deficit balance. Changes in the Group's ownership interest in a subsidiary that do not result in a loss of control is accounted for as an equity transaction. If the Group, however, loses control of a subsidiary, any resulting effects are recognized as gain or loss in profit or loss attributable to the Group.

(3) Investments in subsidiaries

A subsidiary is an entity controlled by the Group.

Specifically, the Group controls an investee if and only if the Group has all of the following:

- (a) Power over the investee,
- (b) Exposure, or rights, to variable returns from its involvement with the investee and
- (c) The ability to use its power over the investee to affect the amount of the investor's returns

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary.

All intercompany transactions, balances, and any unrealized gains and losses arising from intercompany transactions, are eliminated in the preparation of the consolidated financial statements.

(4) Investments in associates

An associate is an entity over which the Group has significant influence but does not have control to govern the entity's financial and operating policies.

The Group's investments in its associates are accounted for using the equity method. Under the equity method, the investment in an associate is initially recognized at cost. The carrying amount of the investment is adjusted to recognize changes in the Group's net share of net assets of the associate since the acquisition date. Goodwill relating to the associate is included in the carrying amount of the investment (less any accumulated impairment loss).

The consolidated statement of profit or loss reflects the results of operations of its associates through the Group's investments. Any changes in other comprehensive income of those associates since the acquisition date are presented as part of the Group's other comprehensive income.

When there has been a change recognized directly in retained earnings of the associate, the Group recognizes its share of any changes in its retained earnings.

The carrying amount of the investment is adjusted to recognize any change in the Group's share of net assets of the associate since the acquisition date. When the Group's share of losses in an associate equals or exceeds its interest in the associate, the Group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the associate.

At each reporting date, the Group determines whether there is objective evidence that an investment in an associate is impaired. If there is such evidence, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value, and then recognizes the loss as "Other operating costs" in the consolidated statement of profit or loss. Unrealized gains and losses resulting from transactions between the Group and associates are eliminated to the extent of the Group's interest in the associate.

(5) Joint control

A joint arrangement is a contractual arrangement where two or more parties have joint control.

The Group determines the type of joint agreement in which it is involved. The classification of a joint arrangement as joint operation where the Group has rights to the assets and obligations for the liabilities of the arrangement, or a joint venture where the Group has rights to the net assets of the arrangement, depends upon the rights and obligations of the parties to the arrangement.

For a joint operation, the Group recognizes its assets, including its share of any assets held jointly, liabilities, including its share of any liabilities incurred jointly, revenue from the sale of its share of the output arising from the joint operation, share of the revenue from the sale of the output by the joint operation; and expenses, including its share of any expenses incurred jointly. The Group's interest in a joint venture is accounted for using the equity method.

(6) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, demand deposits, and readily-marketable short-term investments with maturities of three months or less from the date of acquisition, which are subject to an insignificant risk of changes in value.

(7) Inventories

Inventories are measured at the lower of cost and net realizable value. The cost of inventories includes purchase costs, costs of conversion, storage costs and all other costs incurred in bringing the inventories to their present location and condition.

Net realizable value is calculated as the estimated selling price for the inventories in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

Cost of inventories is mainly determined by the average cost method, except for the following inventories to which the identified cost method is applied.

The identified cost method is applied to inventories such as: (a) Inventories that are not interchangeable and

(b) Goods or services produced for specific projects and segregated from other inventories

(8) Property, plant and equipment

Property, plant and equipment is measured using the cost model and is stated at cost less accumulated depreciation and accumulated impairment losses. Such cost includes any costs directly attributable to the purchase of the assets. Repair and maintenance costs are recognized in profit or loss as incurred.

Depreciation of property, plant and equipment begins when the asset is available for use, on a straight-line basis, over the following estimated useful lives:

| Office and plant | : 3–50 years |
|-------------------------------|--------------|
| Machinery | : 2–30 years |
| Tools, furniture and fixtures | : 2–23 years |

(9) Goodwill and other intangible assets

Intangible assets are measured using the cost model and are stated at cost less accumulated amortization and accumulated impairment losses.

Goodwill arising on a business combination is recognized as "Goodwill" in the consolidated statement of financial position. Goodwill and intangible assets with indefinite useful lives are not amortized, but are tested for impairment annually and any respective impairment losses are recognized when necessary. Impairment losses relating to goodwill cannot be reversed in future periods.

Development costs on an individual project are recognized as an intangible asset, only if all of the following have been demonstrated:

- (a) The technical feasibility of completing the intangible asset so that it will be available for use or sale;
- (b) The Group's intention to complete and use or sell the intangible asset;
- (c) The Group's ability to use or sell the intangible asset;
- (d) How the intangible asset will generate probable future economic benefits;
- (e) The availability of appropriate technical, financial and other resources to complete the development and to use or sell the intangible asset; and
- (f) The ability to measure reliably the expenditure related to the intangible asset during its development.

Capitalized development costs are amortized on a straightline basis beginning when development is complete and the asset is available for use over the period of expected future benefit. Development costs which do not meet the above criteria are expensed as incurred.

Other intangible assets are amortized on a straight-line basis over the following estimated useful lives:

Intangible assets generated by development: 2–10 yearsSoftware and other intangible assets: 1–5 yearsCustomer-related assets: 15 years (approximately)Technology-related assets: 6 years (approximately)Trademarks (with definite useful lives): 30 years

(10) Leases

Leases that transfer substantially all the risks and rewards incidental to ownership to the Group are classified as finance leases and other lease transactions are classified as operating leases.

Determining of whether an arrangement contains a lease is based on the substance of the arrangement at the inception of the lease.

Operating lease payments are charged to profit or loss over the lease term after the recognition of the aggregate of any benefit of incentives given by a lessor as a reduction of lease payments on a straight-line basis.

Finance leases are capitalized at the commencement of the lease at the inception date fair value of the leased property

or, if lower, at the present value of the minimum lease payments.

Lease obligations are recognized as current or non-current liabilities in the consolidated statement of financial position.

Lease payments are apportioned between the finance charge and the reduction of the outstanding liability and the finance charge is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period.

A leased asset is depreciated over its useful life. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

(11) Impairment of non-financial assets

The Group assesses, at each reporting date, whether there is any indication that intangible assets with indefinite useful lives and that have not yet been brought into use and all property, plant and equipment, excluding goodwill, may be impaired. If any indication exists, the Group estimates the asset's recoverable amount. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and the asset is written down to its recoverable amount. A CGU is the smallest group of assets which generates cash inflows from continuing use that are largely independent of those from other assets or groups of assets.

Goodwill and intangible assets with indefinite useful lives and that have not yet been brought into use are not amortized but tested for impairment annually, mainly at the end of fiscal year, regardless of whether an indication of impairment exists and when circumstances indicate that the carrying amount may be impaired. When the recoverable amount of a CGU is less than its carrying amount, an impairment loss is recognized.

The recoverable amount of CGU is the higher of the value in use and the fair value less costs of disposal. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

The estimated present value based on future cash flows incorporates assumptions about future sales price, sales volume and costs.

For assets, excluding goodwill, an assessment is made at each reporting date to determine whether there is an indication that previously recognized impairment losses may no longer exist or may have decreased. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed the carrying amount (net of depreciation) that would have been determined had no impairment loss been recognized for the asset in prior years.

(12) Income taxes

Income taxes consist of current and deferred taxes. Current and deferred taxes are recognized in profit or loss, except for those arising from business combinations and recognized directly in other comprehensive income or equity.

Deferred tax is provided using the asset and liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes, including carry forwards of unused tax losses and tax credits granted at the reporting date.

Deferred tax assets are recognized for all deductible temporary differences, the carry forwards of unused tax losses and any unused tax credits to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized. Deferred tax liabilities are recognized for all taxable temporary differences in principle.

Deferred tax assets and liabilities are recognized for all taxable temporary differences, except:

- (a) Future taxable temporary differences arising from initial recognition of goodwill.
- (b) Future taxable or deductible differences relating to initial recognition of an asset or liability in a transaction other than a business combination that affects neither accounting profit nor taxable profit or loss.
- (c) Future taxable temporary differences associated with investments in subsidiaries when the timing of the reversal of the temporary differences can be controlled and it is probable that such differences will not reverse in the foreseeable future.
- (d) Future deductible temporary differences associated with investments in subsidiaries when it is probable that such differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset if a legally enforceable right exists to set off current tax assets against current tax liabilities and the deferred taxes relate to income taxes levied by the same taxable entity and the same taxation authority.

(13) Financial instruments

1. Financial assets

(i) Initial recognition and measurement

Financial assets are classified based on the nature and purpose at initial recognition when the Group becomes a party to the contractual provisions of the instruments as follows:

- (a) Financial assets at fair value through profit or loss These are financial assets that are either defined as held for trading, or are designated as such on initial recognition.
- (b) Held-to-maturity investments

These are non-derivative financial assets with fixed or determinable payments and fixed maturities that the Group has the positive intention and ability to hold to maturity.

(c) Loans and receivables

These are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market.

(d) Available-for-sale financial assets

These are non-derivative financial assets designated as available for sale that are not classified as:

- (a) financial assets at fair value through profit or loss;
- (b) held-to-maturity investments; or
- (c) loans and receivables.

All financial assets are recognized initially at fair value plus, in the case of financial assets not recorded at fair value through profit or loss, transaction costs that are attributable to the acquisition of the financial assets.

(ii) Subsequent measurement

(a) Financial assets at fair value through profit or loss

These are measured at fair value and any gain or loss resulting from changes in fair value is recognized in profit or loss.

(b) Held-to-maturity investments

These are measured at amortized cost using the effective interest method, less any impairment loss. (c) Loans and receivables

These are measured at amortized cost using the effective interest method less any impairment loss.

(d) Available-for-sale financial assets

These are measured at fair value as of the end of reporting period, and any gain or loss resulting from changes in fair value is recognized in other comprehensive income.

Differences arising from the translation of monetary assets are recognized in profit or loss.

(iii) Impairment of financial assets

The Group assesses, at each reporting date, whether there is any objective evidence that a financial asset, other than those at fair value through profit or loss, is impaired. An impairment exists, if one or more events has occurred since the initial recognition of the asset that has an impact on the estimated future cash flows of the financial asset that can be reliably estimated.

In case of available-for-sale financial assets, objective evidence would include a significant or prolonged decline in the fair value of the investment below its cost.

In case of trade receivables, the Group assess whether there is any objective evidence of impairment individually for separately significant assets or collectively for assets that are not individually significant.

For financial assets carried at amortized cost, the amount of any impairment loss identified is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows. The present value of the estimated future cash flow is discounted at the financial asset's original effective interest rate. If, in a subsequent period, the amount of the impairment loss decreases, and the decrease can be objectively related to an event occurring after the impairment was recognized, the previously recognized impairment loss is reduced and the recovery is credited in the consolidated statement of profit or loss.

When there is evidence of impairment loss on available-for-sale financial assets, the cumulative loss is removed from other comprehensive income and recognized in the consolidated statement of profit or loss.

Impairment losses on equity instruments classified as available for sale are not reversed through profit or loss.

In case of debt instruments classified as available for sale, if, in a subsequent period, the fair value of the debt instruments increase, and the increase can be objectively related to an event occurring after the impairment loss was recognized in profit or loss, the impairment loss is reversed through profit or loss.

(iv) Derecognition

A financial asset is primary derecognized when the right to receive cash flows from the asset have expired or the Group has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party. On derecognition of a financial asset in its entirety, the difference between the carrying amount of the asset and the consideration received, including any new asset obtained less any new liability assumed, is recognized in profit or loss.

2. Financial liabilities

(i) Initial recognition and measurement

Financial liabilities are classified, at initial recognition, when the Group becomes a party to the contractual provisions of the instrument as follows:

(a) Financial liabilities at fair value through profit or loss

These are financial liabilities that are designated as such on initial recognition.

(b) Other financial liabilities, including interest-bearing bonds and borrowings

These are financial liabilities that are not designated at fair value through profit or loss.

Transaction costs directly attributable to the issuance of financial liabilities, other than financial liabilities measured at fair value through profit or loss, are deducted from the fair value of the financial liabilities.

- (ii) Subsequent measurement
 - (a) Financial liabilities at fair value through profit or loss

These are measured at fair value, and any gain or loss arising on remeasurement is recognized in profit or loss.

(b) Other financial liabilities, including interest-bearing bonds and borrowings

These are measured at amortized cost mainly using the effective interest method.

(iii) Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When a financial liability is extinguished or transferred to another party, the difference between the carrying amount of the transferred financial liability and the consideration paid, including any non-cash assets transferred or liabilities assumed, is recognized in profit or loss.

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and if there is an intention of settlement on a net basis, or of simultaneous realization of the assets and settlement of the liabilities.

(iv) Preferred stock

The Group classifies preferred stock as equity or financial liability based on the substance of the contractual arrangements, not on their legal forms. Preferred stock mandatorily redeemable on a particular date is classified as financial liability. Preferred stock classified as liability is measured at amortized cost in the consolidated statement of financial position and the dividends on these preferred stock are recognized as interest expense and presented as financial cost in the consolidated statement of income.

3. Derivative financial instruments

Derivative financial instruments are initially recognized at fair value on the date when the derivative contract is entered into and are subsequently remeasured at fair value.

Any gains or losses arising from changes in the fair value of derivatives are recognized directly to profit or loss, except for those that qualify for hedge accounting.

The Group uses derivative financial instruments, such as forward currency contracts and interest rate swaps, to hedge foreign currency risk and interest rate risk.

At the inception of the hedge, the Group formally designates and documents the hedging relationship and the Group's risk management objective and strategy for undertaking the hedge.

Hedges that meet the criteria for hedge accounting are accounted for as described below:

(a) Fair value hedges

If a fair value hedge meets certain qualifying conditions, the gain or loss from remeasuring the hedging instrument at fair value is recognized in profit or loss

(b) Cash flow hedges

If a cash flow hedge meets certain qualifying conditions, the effective portion of the gain or loss on the hedging instrument is recognized in other comprehensive income, net of tax.

The ineffective portion should be recognized immediately in profit or loss. Amounts recognized in other comprehensive income are transferred to profit or loss when the hedged item affects profit or loss (such as when a hedged forecast sale occurs).

(14) Provisions

Provisions are recognized when the Group has a legal or constructive obligation as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. The amount to be recognized as a provision is measured based on the best estimate of the expenditure required to settle the present obligation at the end of the reporting period. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, when appropriate, the risks specific to the liability.

(15) Employee benefits

The Group recognizes the undiscounted amount of any short-term benefits attributable to services that have been rendered in the period as an expense. When a present legal or constructive obligation to make payments associated with bonus plans or accumulating paid absences exists, and a reliable estimate of the provision can be made, the amount to be paid in accordance with these benefits is accounted for as a liability.

Projected benefit obligations are measured using the projected unit credit method. This actuarial method also determines the current service cost and any past service costs.

The projected unit credit method is used to make a reliable estimate of the ultimate cost to the entity for benefits that employees have earned in return for their services in current and prior periods. This requires the Group to make estimates (actuarial assumptions) about demographic variables and financial variables, such as future increases in salaries that will affect the cost of the benefit. The valuation is based on a report prepared by independent actuaries. Net defined benefit liabilities are based on the present value of the defined benefit obligation less the fair value of plan assets at the reporting date.

The present value of a defined benefit obligation is based on the discounted future cash flows at a rate determined by reference to market yield on high-quality corporate bonds whose currency and term are consistent with the obligation.

Actuarial differences arising from changes in actuarial assumptions and experience adjustments are recognized immediately in other comprehensive income in the consolidated statement of comprehensive income.

Past service costs are recognized immediately in profit or loss.

The contribution payable for a defined contribution plan in exchange for employee service is recognized as an expense, unless another IFRS requires or permits its capitalization.

When there is a surplus in a defined benefit plan, the net defined benefit asset recognized is restricted to the lower of the surplus in the plan and the asset ceiling.

(16) Equity and equity instruments

1. Common stock

Equity instruments issued by the Company are included in subscribed capital and capital surplus. Transaction costs related to the issuance of equity instruments are deducted from capital surplus.

2. Treasury shares

When the Company repurchases its own ordinary shares, the amount of the consideration paid, including transaction costs, is deducted from equity. When the Company sells or reissues treasury shares, the consideration received is recognized directly in equity, and the gain or loss resulting from the transaction is included in capital surplustreasury shares.

3. Perpetual subordinated loan and perpetual subordinated bonds

Perpetual subordinated loan and perpetual subordinated bonds are classified as equity instruments as no specific date is determined for repayment of the principal and optional deferral of interest payments is possible. The proceeds from the perpetual subordinated loan and perpetual subordinated bonds, after deduction of issuance costs, are recorded as "Hybrid capital" in the consolidated statement of financial position.

(17) Share-based payment

The Group has stock option plans as incentive plans for directors, executive officers, and employees. The fair value of stock options at the grant date is recognized as a personnel cost over the vesting period from the grant date as a corresponding increase in other components of equity. The fair value of the stock options is measured using the Black-Scholes model or other models, taking into account for the terms of the options granted. The Group regularly reviews the terms and revises estimates of the number of options that are expected to vest, as necessary.

(18) Revenue recognition

The Group measures revenue at the fair value of the consideration received or receivable, taking into account contractually defined terms of payment and excluding taxes or duty.

Revenue from the sale of goods is recognized when the significant risks and rewards of ownership of the goods

have been transferred to the buyer, it is probable that the economic benefits will flow to the Group and the revenue can be reliably measured and the costs incurred or to be incurred in respect of the transaction can be measured reliably.

Revenue from rendering of services is recognized as the services have been rendered.

(19) Financial income

Interest income is recorded using the effective interest method.

Dividend income is recognized when the Group's right to receive payment is established.

(20) Government grants

Government grants are recognized at fair value where there is reasonable assurance that the grant will be received and all attached conditions will be complied with. When the grant relates to an expense item, it is recognized as income on a systematic basis over the periods in which the related costs, for which it is intended to compensate, are expensed.

When the grant relates to an asset, it is recognized as income in equal amounts over the expected useful life of the related asset and as deferred income for the remaining portion in the consolidated statement of financial position.

(21) Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets that necessarily take a substantial period of time to get ready for their intended use or sale are capitalized as part of the cost of the assets.

(22) Foreign currency translation

Transactions in foreign currencies are initially recorded by Group entities at their respective functional currency spot rates at the date the transaction first qualifies for recognition.

Assets and liabilities of foreign subsidiaries are translated into Japanese yen using the closing rate at the reporting date and income and expense items are translated using the average exchange rates for the period.

The exchange differences arising on translation of financial statements of foreign subsidiaries are recognized in other comprehensive income and the cumulative effect from the exchange differences is recognized in "Other components of equity" in the consolidated statement of financial position.

Monetary assets and liabilities denominated in foreign currencies are translated using the functional currency spot rates at the reporting date.

Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value was measured.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions.

The gain or loss arising on settlements or translation is recognized in profit or loss.

Any goodwill and other intangible assets arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operation and translated at the spot rate of exchange at the reporting date.

(23) Significant accounting judgments, estimates and assumptions

The preparation of consolidated financial statements requires management of the Group to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses.

Uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of assets or liabilities affected in future periods.

Estimates and assumptions are reviewed on an ongoing basis.

Changes in accounting estimates are accounted for prospectively; defined as recognizing the effect of the change in the accounting estimate in the current and future periods affected by the change.

In the process of applying the Group's accounting policies, management has made the following estimations and judgments, which have the most significant effect on the amounts recognized in the consolidated financial statements:

1. Fair value of acquired assets and assumed liabilities as a result of business combinations

Assets acquired and liabilities assumed as a result of a business combination are initially measured at fair value at the date of acquisition. The key assumptions, including future cash flow and discount rates, serving as the basis for the valuation of fair value may change due to market changes or circumstances arising that are beyond the control of the Group and, accordingly, prospectively significant adjustments to the carrying amount of goodwill and other intangible assets and respective amortization expenses may occur.

 Impairment of goodwill and other intangible assets
 An impairment test is performed annually or at any time if indications of impairment exist.
 For the impairment testing of goodwill and other intangible assets, the recoverable amount is defined as

the higher of fair value less costs of disposal and value in use based on the identified cash generating units. The key assumptions, including the measurement of fair value less cost of disposal and the cash flow that the Group will derive from the use and disposal, in order to calculate the value in use of the cash

in order to calculate the value in use of the cash generating unit and the respective discount rates may change due to market changes or circumstances arising that are beyond the control of the Group and, accordingly, prospectively significant adjustments to the impairment loss of goodwill and other intangible assets may occur.

3. Recoverability of deferred tax assets

Deferred tax assets are recognized for deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be utilized. However, judgment of the recoverability is based on the premise of estimated taxable income estimated from business plans of the Group. The estimation of taxable income may change due to market changes or circumstances arising that are beyond the control of the Group and, accordingly, prospectively significant adjustments to the recognized amount of deferred tax assets may occur. 4. Measurement of provisions

The amount to be recognized as a provision is measured based on the best estimate of the expenditure required to settle the present obligation at the end of the reporting period.

The estimated outcome and financial effects are determined by the judgment of the management of the Group, supplemented by evidence provided by events occurring after the reporting period.

The assumptions used for measuring a provision may change due to market changes or circumstances arising that are beyond the control of the Group and, accordingly, prospectively significant adjustments to the measurement of a provision may occur.

5. Financial liabilities arising from the Domination, Profit and Loss Transfer Agreement (hereinafter, the "DPLTA") The Group estimates the amount of its obligation for the share purchase option and the annual compensation amount at the end of the reporting period based on a re-purchase price per share, annual compensation amount per share and the number of outstanding shares. At the same time, the Group reasonably estimates the expected payment timing. Based on this information, the Group recognizes the present discounted value of financial liabilities arising from the DPLTA.

The conditions for the Group's obligation and future economic conditions may change and, accordingly, prospectively significant adjustments to the measurement of the liability may occur.

4. New Accounting Standards Not Yet Adopted by the Group

The new accounting standards, amended standards and new interpretations that are issued or amended, but not yet adopted by the Group up to the date of approval of the consolidated financial statements are as follows:

Also, the effects on the Group due to the application of the standards or interpretations listed below are still under consideration and cannot be estimated at this time.

| | IFRS | Mandatory adoption (Effective) | To be adopted by the Group | Description of new accounting standards and amendments |
|----------|---|-----------------------------------|---|---|
| IFRS 2 | Share-based Payment | 1st January, 2018 | Fiscal year ending 31st December, 2018 | Clarification of classification and measurement to specific share-based payment |
| IFRS 9 | Financial Instruments | 1st January, 2018 | Fiscal year ending 31st December, 2018 | Amendments to classification, measurement and recognition of financial instruments and hedge accounting |
| IFRS 15 | Revenue from Contracts with Customers | 1st January, 2018 | Fiscal year ending 31st December, 2018 | Comprehensive framework for revenue recognition |
| IFRS 16 | Leases | 1st January, 2019 | Fiscal year ending 31st December, 2019 | Amendments to recognition of assets and liabilities for lessees |
| IFRIC 23 | Uncertainty over Income Tax Treatments | 1st January, 2019 | Fiscal year ending 31st December, 2019 | Clarification of the accounting for uncertainties in income taxes. |

5. Significant Change in Scope of Consolidation

There was no significant change in scope of consolidation during the fiscal year ended 31st December, 2017.

6. Segment Information

(1) Outline of reportable segments

The reportable segments of the Group are based on its business areas for which discrete financial information is available, and they are regularly reviewed by the Board of Directors and corporate officers for the purpose of making decisions about resource allocation and performance assessment. The classification of the reportable segments is based on the products and services and the associated internal reporting and management methods.

As a result, the business activities of the Group are categorized into "Machine Tools" and "Industrial Services," as its two reportable segments.

The "Machine Tools" segment generates its revenue through the production and sales of machine tools. The "Industrial Services" segment generates its revenue through providing services and solutions related to machine tools. (2) Calculation methods of sales revenues, income or loss, assets and other items by each reportable segment

The accounting methods for the reportable segments are essentially the same as those described in Note 3, "Significant Accounting Policies."

The amount of segment income (loss) is the aggregate of operating income (loss) and share of profits (losses) of associates and joint ventures. Inter-segment sales revenues and transfers between the segments are based on market prices.

(3) Information on sales revenues, income, assets and other items by reportable segment Sales revenues and income by each reportable segment for the year ended 31st December, 2017 and 31st December, 2016 are summarized as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017)

| | Millions of yen | | | | | | |
|---|-----------------|---------------------|-----------|--------------------|-------------|--------------|--|
| | | Reportable segments | | | Adjustments | | |
| | Machine Tools | Industrial Services | Total | Corporate Services | Elimination | Consolidated | |
| Sales revenues | | | | | | | |
| External customers | ¥312,073 | ¥117,556 | ¥429,630 | ¥ 34 | ¥ – | ¥429,664 | |
| Other segments | 131,133 | 18,580 | 149,714 | 2,067 | (151,782) | - | |
| Total | 443,207 | 136,136 | 579,344 | 2,101 | (151,782) | 429,664 | |
| Segment income (Note 1) | 31,407 | 9,087 | 40,495 | (9,511) | (1,529) | 29,453 | |
| Financial income | - | - | - | - | - | 647 | |
| Financial costs | - | - | - | - | - | (5,297) | |
| Earnings before income taxes | - | - | - | - | - | 24,803 | |
| Segment assets (Note 2) | 687,366 | 502,990 | 1,190,356 | 431,189 | (1,054,134) | 567,411 | |
| Other items | | | | | | | |
| Depreciation and amortization | 9,364 | 5,289 | 14,653 | 3,690 | - | 18,344 | |
| Investments in associates and joint ventures | 413 | 1,815 | 2,229 | - | - | 2,229 | |
| Capital expenditure | 4,116 | 1,569 | 5,686 | 3,916 | (218) | 9,384 | |

| | Thousands of U.S. dollars | | | | | | |
|---|---------------------------|---------------------|--------------|--------------------|-------------|--------------|--|
| | | Reportable segments | | | Adjustments | | |
| | Machine Tools | Industrial Services | Total | Corporate Services | Elimination | Consolidated | |
| Sales revenues | | | | | | | |
| External customers | \$2,761,708 | \$1,040,319 | \$ 3,802,035 | \$ 301 | \$ - | \$3,802,336 | |
| Other segments | 1,160,469 | 164,425 | 1,324,903 | 18,292 | (1,343,204) | - | |
| Total | 3,922,186 | 1,204,743 | 5,126,938 | 18,593 | (1,343,204) | 3,802,336 | |
| Segment income (Note 1) | 277,938 | 80,416 | 358,363 | (84,168) | (13,531) | 260,646 | |
| Financial income | - | - | - | - | - | 5,726 | |
| Financial costs | - | - | - | - | - | (46,876) | |
| Earnings before income taxes | - | - | - | - | - | 219,496 | |
| Segment assets (Note 2) | 6,082,885 | 4,451,239 | 10,534,124 | 3,815,832 | (9,328,619) | 5,021,336 | |
| Other items | | | | | | | |
| Depreciation and amortization | 82,867 | 46,805 | 129,673 | 32,655 | - | 162,336 | |
| Investments in associates and joint ventures | 3,655 | 16,062 | 19,726 | - | - | 19,726 | |
| Capital expenditure | 36,425 | 13,885 | 50,319 | 34,655 | (1,929) | 83,044 | |

[Note 1] "Adjustments to segment income" include elimination of inter-segment transactions and expenses related to corporate services. [Note 2] "Adjustments to segment assets" mainly include corporate assets not attributable to any business segment and elimination of inter-segment receivables.

Fiscal year 2016 (1st January, 2016 through 31st December, 2016)

| | Millions of yen | | | | | | |
|---|---------------------|---------------------|-----------|--------------------|-------------|--------------|--|
| | | Reportable segments | | | Adjustments | | |
| | Machine Tools | Industrial Services | Total | Corporate Services | Elimination | Consolidated | |
| Sales revenues | | | | _ | | | |
| External customers | ¥267,873 | ¥108,731 | ¥ 376,604 | ¥ 26 | ¥ – | ¥376,631 | |
| Other segments | 120,711 | 24,628 | 145,340 | 2,629 | (147,969) | - | |
| Total | 388,585 | 133,359 | 521,945 | 2,655 | (147,969) | 376,631 | |
| Segment income (Note 1) | 11,669 | 1,777 | 13,446 | (11,678) | 390 | 2,158 | |
| Financial income | - | - | - | - | - | 711 | |
| Financial costs | - | - | - | - | - | (3,935) | |
| Loss before income taxes | - | - | - | | - | (1,064) | |
| Segment assets (Note 2) | 644,252 | 464,240 | 1,108,492 | 382,961 | (933,232) | 558,222 | |
| Other items | | | | | | | |
| Depreciation and amortization | 11,411 | 5,654 | 17,065 | 626 | - | 17,691 | |
| Investments in associates and joint ventures | 364 | 1,622 | 1,987 | - | - | 1,987 | |
| Capital expenditure | 7,664 | 6,958 | 14,622 | 782 | (163) | 15,242 | |

[Note 1] "Adjustments to segment income" include elimination of inter-segment transactions and expenses related to corporate services. [Note 2] "Adjustments to segment assets" includes corporate assets not attributable to each business segment and elimination of inter-segment receivables.

(4) Information on products and services

As the classification for the reportable segments is based on the type of products and services of the Group, no additional disclosure is required.

(5) Information on geographical areas

Sales revenues from external customers and non-current assets by geographic areas are as follows:

Sales revenues from external customers

| | Million | Thousands of U.S. dollars | |
|------------------------------|---|---|---|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Japan | ¥ 65,756 | ¥ 55,282 | \$ 581,912 |
| Germany | 99,952 | 99,438 | 884,531 |
| The Americas | 78,524 | 55,860 | 694,903 |
| Europe other than Germany | 141,802 | 119,263 | 1,254,885 |
| China and Asia | 43,627 | 46,786 | 386,080 |
| Total | ¥429,664 | ¥376,631 | \$3,802,336 |

[Note] Sales revenues by geographical areas are categorized by countries or regions based on the geographical location of the respective sales entities.

Non-current assets

| | Million | Thousands of U.S. dollars | |
|------------------------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Japan | ¥ 60,028 | ¥ 61,047 | \$ 531,221 |
| Germany | 97,785 | 84,389 | 865,354 |
| The Americas | 10,334 | 13,697 | 91,451 |
| Europe other than Germany | 115,220 | 108,594 | 1,019,646 |
| China and Asia | 11,081 | 14,194 | 98,062 |
| Eliminations | (17,803) | [12,493] | (157,549) |
| Total | ¥276,646 | ¥269,429 | \$2,448,195 |

[Note] Non-current assets by geographical areas are classified by countries or regions based on the locations of the assets, and consist of property, plant and equipment, goodwill and other intangible assets.

(6) Information on major customers

Disclosure of major customers was omitted because the proportion of revenue from an individual customer did not exceed 10% of consolidated sales revenues for the fiscal year 2017 and 2016, respectively.

7. Cash and Cash Equivalents

The breakdown of cash and cash equivalents at 31st December, 2017 and 2016 is as follows:

| | Million | Thousands of U.S. dollars | |
|---|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Cash on hand and at banks with maturities of three months or less | ¥64,973 | ¥67,750 | \$574,982 |
| Total | ¥64,973 | ¥67,750 | \$574,982 |

(Note) The balance of cash and cash equivalents in the consolidated statement of financial position at 31st December, 2017 and 2016 agreed with the respective balances in the consolidated statement of cash flows.

8. Trade and Other Receivables

The breakdown of trade and other receivables at 31st December, 2017 and 2016 is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|---------------------------------------|------------------------|------------------------|------------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Notes and trade receivables | ¥59,343 | ¥49,391 | \$525,159 |
| Other | 3,525 | 3,837 | 31,195 |
| Allowance for doubtful receivables | (2,127) | (2,220) | (18,823) |
| Total | ¥60,741 | ¥51,008 | \$537,531 |
| | | | |

10. Property, Plant and Equipment

(1) The movement in cost, accumulated depreciation and impairment losses and carrying amount for property, plant and equipment is as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017) Cost

| | Millions of yen | | | | | |
|---|--------------------------------|------------------------|----------------------------------|--------------------------------------|----------|--|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 2) | Total | |
| Beginning balance | ¥153,703 | ¥30,172 | ¥39,343 | ¥8,859 | ¥232,078 | |
| Acquisitions | 1,802 | 935 | 2,153 | 1,163 | 6,054 | |
| Acquisitions through business combinations | - | 15 | 9 | - | 24 | |
| Disposals | (4,439) | (3,778) | (1,272) | (310) | (9,800) | |
| Reclassification from construction in progress | 6,392 | 642 | 992 | (8,163) | (136) | |
| Exchange differences on translation of foreign operations | 4,995 | 746 | 2,696 | 57 | 8,496 | |
| Other | 780 | 194 | (1,261) | - | (285) | |
| Ending balance | ¥163,235 | ¥28,927 | ¥42,661 | ¥1,605 | ¥236,430 | |

9. Inventories

The breakdown of inventories at 31st December, 2017 and 2016 is as follows:

| | Million | Thousands of U.S. dollars | |
|-----------------------------------|--|------------------------------|------------------------|
| | 31st December, 2017 31st December, 2016 31st December, 2017 | | 31st December, 2017 |
| Raw materials and supplies | ¥ 50,770 | ¥ 47,241 | \$ 449,292 |
| Work in process | 30,152 | 25,309 | 266,832 |
| Merchandise and finished goods | 42,059 | 49,621 | 372,204 |
| Total | ¥122,981 | ¥122,172 | \$1,088,327 |

(Note 1) Cost of raw materials, consumables and goods for resale in the (Note 1) Cost of Yaw Materials, consumates and goods for reside in the consolidated statement of profit or loss included the write-downs of inventories of ¥3,215 million (\$28,451 thousand) and ¥4,020 million for the year ended 31st December, 2017 and 2016, respectively.
 (Note 2) Cost of inventories recognized in profit or loss for the year ended 31st December, 2017 and 2016 amounted to ¥268,125 million (\$2,372,788 thousand) and ¥241,224 million, respectively, including the above writedown of profit.

downs of inventories.

| | | | Thousands of U.S. dollars | | |
|---|--------------------------------|------------------------|----------------------------------|--------------------------------------|-------------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 2) | Total |
| Beginning balance | \$1,360,204 | \$267,009 | \$348,168 | \$78,398 | \$2,053,788 |
| Acquisitions | 15,947 | 8,274 | 19,053 | 10,292 | 53,575 |
| Acquisitions through business combinations | - | 133 | 80 | - | 212 |
| Disposals | (39,283) | (33,434) | (11,257) | (2,743) | (86,726) |
| Reclassification from construction in progress | 56,566 | 5,681 | 8,779 | (72,239) | (1,204) |
| Exchange differences on translation of foreign operations | 44,204 | 6,602 | 23,858 | 504 | 75,186 |
| Other | 6,903 | 1,717 | (11,159) | - | (2,522) |
| Ending balance | \$1,444,558 | \$255,991 | \$377,531 | \$14,204 | \$2,092,301 |

Accumulated depreciation and impairment losses

| | Millions of yen | | | | |
|---|--------------------------------|------------------------|----------------------------------|--------------------------------------|------------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 3) | Total |
| Beginning balance | ¥(57,033) | ¥(13,632) | ¥(23,970) | ¥- | ¥ (94,636) |
| Depreciation (Note 1) | (3,388) | (3,373) | (4,420) | - | (11,182) |
| Impairment losses (Note 2) | (950) | (570) | - | - | (1,520) |
| Disposals | 3,487 | 3,414 | 1,027 | - | 7,930 |
| Exchange differences on translation of foreign operations | (1,749) | (380) | (1,767) | - | (3,897) |
| Other | (583) | 521 | 920 | - | 858 |
| Ending balance | ¥(60,217) | ¥(14,019) | ¥(28,210) | ¥- | ¥(102,447) |

| | Thousands of U.S. dollars | | | | |
|---|--------------------------------|------------------------|----------------------------------|--------------------------------------|-------------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 3) | Total |
| Beginning balance | \$(504,717) | \$(120,637) | \$(212,124) | \$- | \$(837,487) |
| Depreciation (Note 1) | (29,982) | (29,850) | (39,115) | - | (98,956) |
| Impairment losses (Note 2) | (8,407) | (5,044) | - | - | (13,451) |
| Disposals | 30,858 | 30,212 | 9,088 | - | 70,177 |
| Exchange differences on translation of foreign operations | (15,478) | (3,363) | (15,637) | - | (34,487) |
| Other | (5,159) | 4,611 | 8,142 | - | 7,593 |
| Ending balance | \$(532,894) | \$(124,062) | \$(249,646) | \$- | \$(906,611) |

Carrying amount

| | Millions of yen | | | | |
|-------------------|--------------------------------|------------------------|----------------------------------|--------------------------------------|----------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 3) | Total |
| Beginning balance | ¥96,670 | ¥16,540 | ¥15,372 | ¥8,859 | ¥137,441 |
| Ending balance | 103,018 | 14,908 | 14,450 | 1,605 | 133,983 |
| | | | | | |

[Note 1] Depreciation is included in "Depreciation and amortization" in the consolidated statement of profit or loss. (Note 2) Impairment losses are included in "Other Operating Costs" in the consolidated statement of profit or loss. (Note 3) Amounts for property, plant and equipment under construction are presented in "Construction in progress."

| | Thousands of U.S. dollars | | | | |
|-------------------|--------------------------------|------------------------|----------------------------------|-------------------------------------|-------------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress(Note 3) | Total |
| Beginning balance | \$855,487 | \$146,372 | \$136,035 | \$78,398 | \$1,216,292 |
| Ending balance | 911,664 | 131,929 | 127,876 | 14,204 | 1,185,690 |

[Note 1] Depreciation is included in "Depreciation and amortization" in the consolidated statement of profit or loss. (Note 2) Impairment losses are included in "Other Operating Costs" in the consolidated statement of profit or loss. [Note 3] Amounts for property, plant and equipment under construction are presented in "Construction in progress."

Fiscal year 2016 (1st January, 2016 through 31st December, 2016) Cost

| | Millions of yen | | | | |
|---|--------------------------------|------------------------|-------------------------------|---|----------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 2) | Total |
| Beginning balance | ¥149,576 | ¥27,720 | ¥37,015 | ¥13,580 | ¥227,892 |
| Acquisitions | 916 | 2,101 | 3,333 | 5,299 | 11,650 |
| Acquisitions through business combinations | 26 | 219 | 26 | - | 273 |
| Disposals | (1,051) | (1,344) | (913) | (203) | (3,512) |
| Reclassification from construction in progress | 7,234 | 1,953 | 960 | (10,148) | - |
| Exchange differences on translation of foreign operations | (3,000) | (942) | (1,079) | 331 | (4,691) |
| Other | - | 464 | - | - | 464 |
| Ending balance | ¥153,703 | ¥30,172 | ¥39,343 | ¥ 8,859 | ¥232,078 |

Accumulated depreciation and impairment losses

| | Millions of yen | | | | |
|---|--------------------------------|------------------------|----------------------------------|---|-----------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 3) | Total |
| Beginning balance | ¥(52,819) | ¥(11,746) | ¥(21,406) | ¥- | ¥(85,972) |
| Depreciation (Note 1) | (3,820) | (3,393) | (4,198) | - | (11,413) |
| Impairment losses (Note 2) | (1,750) | - | - | - | (1,750) |
| Disposals | 472 | 1,047 | 728 | - | 2,249 |
| Exchange differences on translation of foreign operations | 884 | 459 | 905 | - | 2,250 |
| Other | - | - | - | - | - |
| Ending balance | ¥(57,033) | ¥(13,632) | ¥(23,970) | ¥- | ¥(94,636) |

Carrying amount

| | Millions of yen | | | | |
|-------------------|--------------------------------|------------------------|----------------------------------|---|----------|
| | Land, buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Construction in progress (Note 3) | Total |
| Beginning balance | ¥96,757 | ¥15,973 | ¥15,608 | ¥13,580 | ¥141,919 |
| Ending balance | 96,670 | 16,540 | 15,372 | 8,859 | 137,441 |

[Note 1] Depreciation is included in "Depreciation and amortization" in the consolidated statement of profit or loss. [Note 2] Impairment losses are included in "Other Operating Costs" in the consolidated statement of profit or loss.

(Note 3) Amounts for property, plant and equipment under construction are presented in "Construction in progress."

(2) Impairment losses

The carrying value of certain assets, including buildings and machinery, were written down to their recoverable amount during the fiscal year ended 31st December, 2017 as their profitability declined and they were not expected to be used for business purposes. ¥1,520 million (\$13,451 thousands) of impairment loss was allocated to the Industrial Services segment.

The carrying value of certain assets, including buildings, were written down to their recoverable amount during the fiscal year ended 31st December, 2016 as they were not expected to be used for business purposes. ¥1,488 million and ¥262 million of impairment losses were allocated to the Machine Tools segment and the Industrial Services segment, respectively.

(3) Leased assets

The carrying amounts of the assets held under finance lease contracts included in property, plant and equipment are as follows:

| | Million | Thousands of U.S. dollars | |
|----------------------------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Land, buildings and structures | ¥2,642 | ¥2,928 | \$23,381 |
| Machinery and vehicles | 768 | 1,432 | 6,796 |
| Tools, furniture and fixtures | 138 | 82 | 1,221 |
| Total | ¥3,549 | ¥4,444 | \$31,407 |

(4) Collateral

Assets pledged as collateral and secured liabilities are as follows:

Assets pledged as collateral

| | Million | Thousands of U.S. dollars | |
|--------------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Land and buildings | ¥5,376 | ¥5,449 | \$47,575 |
| Total | ¥5,376 | ¥5,449 | \$47,575 |

Secured liabilities

| | Million | Thousands of U.S. dollars | |
|--|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Interest-bearing bonds and borrowings | ¥2,052 | ¥2,206 | \$18,159 |
| Total | ¥2,052 | ¥2,206 | \$18,159 |

11. Goodwill and Other Intangible Assets

(1) The movement in cost and accumulated impairment losses for goodwill is as follows:

Fiscal year 2017

(1st January, 2017 through 31st December, 2017)

| | | Millions of yen | |
|---|---------|----------------------------------|-----------------|
| | Cost | Accumulated impairment losses | Carrying amount |
| Beginning balance | ¥65,641 | ¥- | ¥65,641 |
| Acquisitions | - | - | - |
| Acquisitions through business combinations | 1,727 | - | 1,727 |
| Disposals | - | - | - |
| Impairment losses | - | - | - |
| Exchange differences on translation of foreign operations | 5,979 | - | 5,979 |
| Ending balance | ¥73,347 | ¥- | ¥73,347 |

| | Thousands of U.S. dollars | | | | |
|---|---------------------------|----------------------------------|-----------------|--|--|
| | Cost | Accumulated impairment losses | Carrying amount | | |
| Beginning balance | \$580,894 | \$- | \$580,894 | | |
| Acquisitions | - | - | - | | |
| Acquisitions through business combinations | 15,283 | - | 15,283 | | |
| Disposals | - | - | - | | |
| Impairment losses | - | - | - | | |
| Exchange differences on translation of foreign operations | 52,912 | - | 52,912 | | |
| Ending balance | \$649,088 | \$- | \$649,088 | | |

Fiscal year 2016 (1st January, 2016 through 31st December, 2016)

| | Millions of yen | | | | | | |
|---|-----------------|----------------------------------|-----------------|--|--|--|--|
| | Cost | Accumulated impairment losses | Carrying amount | | | | |
| Beginning balance | ¥68,218 | ¥- | ¥68,218 | | | | |
| Acquisitions | - | - | - | | | | |
| Acquisitions through business combinations | 2,190 | - | 2,190 | | | | |
| Disposals | - | - | - | | | | |
| Impairment losses | - | - | - | | | | |
| Exchange differences on translation of foreign operations | (4,767) | - | (4,767) | | | | |
| Ending balance | ¥65,641 | ¥– | ¥65,641 | | | | |

(2) The movement in cost and accumulated amortization and impairment losses for other intangible assets is as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017) **Cost**

| | | | | Millions of yen | | | |
|---|------------|-----------------------------|-------------------------------|-----------------|----------------------------------|---------|----------|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total |
| Beginning balance | ¥41,356 | ¥7,658 | ¥5,813 | ¥1,669 | ¥6,003 | ¥29,402 | ¥ 91,904 |
| Acquisitions | - | - | - | - | - | 2,695 | 2,695 |
| Acquisitions through business combinations | - | - | - | - | - | 1 | 1 |
| Additions due to internal development | - | - | - | - | 1,529 | - | 1,529 |
| Disposals | - | - | - | - | - | (88) | (88) |
| Reclassification | - | 154 | - | - | 107 | (125) | 136 |
| Exchange differences on translation of foreign operations | 4,112 | 620 | 583 | - | 1,313 | 1,805 | 8,433 |
| Other | - | - | - | - | - | (32) | (32) |
| Ending balance | ¥45,468 | ¥8,432 | ¥6,396 | ¥1,669 | ¥8,953 | ¥33,659 | ¥104,581 |

| | | Thousands of U.S. dollars | | | | | | | | |
|---|------------|-----------------------------|-------------------------------|----------|----------------------------------|-----------|-----------|--|--|--|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total | | | |
| Beginning balance | \$365,982 | \$67,770 | \$51,442 | \$14,770 | \$53,124 | \$260,195 | \$813,310 | | | |
| Acquisitions | - | - | - | - | - | 23,850 | 23,850 | | | |
| Acquisitions through business combinations | - | - | - | - | - | 9 | 9 | | | |
| Additions due to internal development | - | - | - | - | 13,531 | - | 13,531 | | | |
| Disposals | - | - | - | - | - | (779) | (779) | | | |
| Reclassification | - | 1,363 | - | - | 947 | (1,106) | 1,204 | | | |
| Exchange differences on translation of foreign operations | 36,389 | 5,487 | 5,159 | - | 11,619 | 15,973 | 74,628 | | | |
| Other | - | - | - | - | - | (283) | (283) | | | |
| Ending balance | \$402,372 | \$74,619 | \$56,602 | \$14,770 | \$79,230 | \$297,867 | \$925,496 | | | |

Accumulated amortization and impairment losses

| | | | | Millions of yen | | | |
|---|------------|-----------------------------|-------------------------------|-----------------|----------------------------------|-----------|-----------|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total |
| Beginning balance | ¥ (761) | ¥(1,918) | ¥(1,769) | ¥(1,581) | ¥(1,537) | ¥(17,989) | ¥(25,557) |
| Amortization | (336) | (530) | (1,043) | (29) | (1,533) | (3,687) | (7,161) |
| Impairment losses | - | - | - | - | - | (190) | (190) |
| Reversal of impairment losses | - | - | - | - | - | - | - |
| Disposals | - | - | - | - | - | 80 | 80 |
| Reclassification | - | (16) | - | - | - | 16 | - |
| Exchange differences on translation of foreign operations | (68) | (182) | (246) | - | (676) | (1,294) | (2,468) |
| Other | - | - | - | - | - | 32 | 32 |
| Ending balance | ¥(1,166) | ¥(2,648) | ¥(3,059) | ¥(1,611) | ¥(3,747) | ¥(23,031) | ¥(35,265) |

| | Thousands of U.S. dollars | | | | | | | |
|---|---------------------------|-----------------------------|-------------------------------|------------|----------------------------------|-------------|-------------|--|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total | |
| Beginning balance | \$ (6,735) | \$(16,973) | \$(15,655) | \$(13,991) | \$(13,602) | \$(159,195) | \$(226,168) | |
| Amortization | (2,973) | (4,690) | (9,230) | (257) | (13,566) | (32,628) | (63,372) | |
| Impairment losses | - | - | - | - | - | (1,681) | (1,681) | |
| Reversal of impairment losses | - | - | - | - | - | - | - | |
| Disposals | - | - | - | - | - | 708 | 708 | |
| Reclassification | - | (142) | - | - | - | 142 | - | |
| Exchange differences on translation of foreign operations | (602) | (1,611) | (2,177) | - | (5,982) | (11,451) | (21,841) | |
| Other | - | - | - | - | - | 283 | 283 | |
| Ending balance | \$(10,319) | \$(23,434) | \$(27,071) | \$(14,257) | \$(33,159) | \$(203,814) | \$(312,080) | |

Carrying amount

| | Millions of yen | | | | | | |
|-------------------|-----------------|-----------------------------|-------------------------------|---------|----------------------------------|---------|---------|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total |
| Beginning balance | ¥40,595 | ¥5,740 | ¥4,044 | ¥88 | ¥4,465 | ¥11,413 | ¥66,346 |
| Ending balance | 44,302 | 5,784 | 3,337 | 58 | 5,205 | 10,627 | 69,315 |

| | Thousands of U.S. dollars | | | | | | | |
|-------------------|---------------------------|-----------------------------|-------------------------------|---------|----------------------------------|-----------|-----------|--|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total | |
| Beginning balance | \$359,248 | \$50,796 | \$35,788 | \$779 | \$39,513 | \$101,000 | \$587,133 | |
| Ending balance | 392,053 | 51,186 | 29,531 | 513 | 46,062 | 94,044 | 613,407 | |

Other intangible assets in the above table with finite useful lives are amortized over their useful economic lives. Amortization of intangible assets is included in "Depreciation and amortization" in the consolidated statement of profit or loss.

The amount of intangible assets in the above table with indefinite useful lives was ¥35,009 million (\$309,814 thousand) at 31st December, 2017.

Intangible assets with indefinite useful lives were mainly trademarks, which were recognized as a result of the

integration between DMG MORI AG and the Company. Trademarks are classified as intangible assets with indefinite useful lives since there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the Group to the extent that their respective operations continue.

Internally generated intangible assets (after deducting accumulated amortization and impairment losses) at 31st December, 2017 were ¥5,205 million (\$46,062 thousand) and included in capitalized development costs in the above table.

Fiscal year 2016 (1st January, 2016 through 31st December, 2016) **Cost**

| | | | | Millions of yen | | | |
|---|------------|-----------------------------|-------------------------------|-----------------|----------------------------------|---------|---------|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total |
| Beginning balance | ¥44,291 | ¥7,675 | ¥6,238 | ¥1,669 | ¥5,807 | ¥26,925 | ¥92,607 |
| Acquisitions | - | - | - | - | - | 1,951 | 1,951 |
| Acquisitions through business combinations | 70 | 449 | - | - | - | - | 519 |
| Additions due to internal development | - | - | - | - | 1,640 | - | 1,640 |
| Disposals | - | - | - | - | - | - | - |
| Reclassification | - | - | - | - | 43 | - | 43 |
| Exchange differences on translation of foreign operations | (3,004) | (466) | (425) | - | (1,487) | 526 | (4,857) |
| Other | - | - | - | - | - | - | - |
| Ending balance | ¥41,356 | ¥7,658 | ¥5,813 | ¥1,669 | ¥6,003 | ¥29,402 | ¥91,904 |

Accumulated amortization and impairment losses

| | | | | Millions of yen | | Millions of yen | | | | | | |
|---|------------|-----------------------------|-------------------------------|-----------------|----------------------------------|-----------------|-----------|--|--|--|--|--|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total | | | | | |
| Beginning balance | ¥[469] | ¥(1,551) | ¥ (813) | ¥(1,550) | ¥(1,076) | ¥(14,310) | ¥(19,773) | | | | | |
| Amortization | (309) | (385) | (991) | (30) | (1,340) | (3,219) | (6,278) | | | | | |
| Impairment losses | - | - | - | - | - | - | - | | | | | |
| Reversal of impairment losses | - | - | - | - | - | - | - | | | | | |
| Disposals | - | - | - | - | - | - | - | | | | | |
| Reclassification | - | - | - | - | - | - | - | | | | | |
| Exchange differences on translation of foreign operations | 17 | 19 | 36 | - | 880 | (459) | 494 | | | | | |
| Other | - | - | - | - | - | - | - | | | | | |
| Ending balance | ¥(761) | ¥(1,918) | ¥[1,769] | ¥(1,581) | ¥(1,537) | ¥(17,989) | ¥(25,557) | | | | | |

Carrying amount

| | Millions of yen | | | | | | | |
|-------------------|-----------------|-----------------------------|-------------------------------|---------|----------------------------------|---------|---------|--|
| | Trademarks | Customer -related assets | Technology -related assets | Patents | Capitalized development costs | Others | Total | |
| Beginning balance | ¥43,821 | ¥6,124 | ¥5,424 | ¥119 | ¥4,730 | ¥12,614 | ¥72,834 | |
| Ending balance | 40,595 | 5,740 | 4,044 | 88 | 4,465 | 11,413 | 66,346 | |

Other intangible assets in the above table with finite useful lives are amortized over their useful economic lives. Amortization of intangible assets is included in "Depreciation and amortization" in the consolidated statement of profit or loss.

The amount of intangible assets in the above table with indefinite useful lives was ¥31,817 million at 31st December, 2016.

Intangible assets with indefinite useful lives were mainly trademarks, which were recognized as a result of the integration between DMG MORI AG and the Company. Trademarks are classified as intangible assets with indefinite useful lives since there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows for the Group to the extent that their respective operations continue.

Internally generated intangible assets (after deducting accumulated amortization and impairment losses) at 31st December, 2016 were ¥4,465 million and included in capitalized development costs in the above table.

(3) Impairment losses

The carrying value of certain assets, including software, were written down to their recoverable amount during the fiscal year ended 31st December, 2017 as they were not expected to be used for business purposes. ¥190 million (\$1,681 thousands) of impairment loss was allocated to the Machine Tools segment.

The Group recognized no impairment losses on goodwill and other intangible assets for the year ended 31st December, 2016.

(4) Significant goodwill and other intangible assets

Significant goodwill and other intangible assets in the consolidated statement of financial position were recognized as a result of the integration with DMG MORI AG and the Company as follows.

| | Million | s of yen | | Thousands of U.S. dollars |
|-------------------------------|---|---|-------------------------------------|---|
| | Carrying amount [31st December, 2017] | Carrying amount (31st December, 2016) | Remaining amortization period | Carrying amount [31st December, 2017] |
| Goodwill | ¥70,203 | ¥62,254 | - | \$621,265 |
| Other intangible assets: | | | | |
| Trademarks | 44,254 | 40,527 | 28 years or non- amortizable | 391,628 |
| Customer- related assets | 4,913 | 4,837 | approximately 13 years | 43,478 |
| Technology- related assets | 3,337 | 4,044 | approximately 4 years | 29,531 |

(5) Impairment test of goodwill and other intangible assets Carrying amounts of goodwill and other intangible assets with indefinite useful lives allocated to each CGU (or group of CGUs) are as follows:

| | | Millions of yen | | | | | |
|--|---|-----------------|---------|-----------|--|--|--|
| | CGU 31st December, 31st December, 2017 2016 | | | | | | |
| Goodwill | Machine Tools | ¥31,157 | ¥28,076 | \$275,726 | | | |
| | Industrial Services | 42,190 | 37,564 | 373,363 | | | |
| | Total | ¥73,347 | ¥65,641 | \$649,088 | | | |
| Other intangible assets with indefinite useful lives | Machine Tools | ¥15,775 | ¥14,337 | \$139,602 | | | |
| | Industrial Services | 19,233 | 17,479 | 170,204 | | | |
| | Total | ¥35,009 | ¥31,817 | \$309,814 | | | |

The recoverable amount of goodwill and other intangible assets (allocated to each CGU) with indefinite useful lives related to DMG MORI AG is measured at value in use. In assessing the value in use, the estimated future cash flows of each CGU are discounted to their present value. The key assumptions used for the calculation are as follows:

Estimation of future cash flow: The Group estimates future cash flow based on a five-year business plan. The expected growth rate of future cash flow beyond the period of the business plan is estimated as 2.1%.

Discount rate: The Group used a discount rate of 9.7% in

the cash flow projection at the end of fiscal year ended 31st December, 2017, considering the corresponding WACC in similar business industries.

At the end of fiscal year 2017 (31st December, 2017), the recoverable amounts of goodwill and other intangible assets (allocated to each CGU) with indefinite useful lives related to DMG MORI AG exceeded the corresponding carrying amounts by ¥18,594 million (\$164,549 thousand) in the Machine Tools segment and ¥27,245 million (\$241,106 thousand) in the Industrial Services segment, respectively. Future business plans or the discount rate used for the calculation of the value in use may change, and, as a result, the recognition of impairment may be required in some cases.

The value in use currently exceeds the carrying amounts and the Group believes any reasonably possible change in the key assumptions on which the recoverable amount is based would not cause the aggregate carrying amount to exceed the aggregate recoverable amount of the CGU.

12. Other Financial Assets

The breakdown of other financial assets at 31st December, 2017 and 2016 is as follows:

| | Million | s of yen | Thousands of U.S. dollars | |
|--|------------------------|------------------------|------------------------------|--|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 | |
| Financial assets measured at amortized cost: | | | | |
| Other financial assets including loans Financial assets measured at fair value through profit or loss: | ¥10,474 | ¥ 8,266 | \$ 92,690 | |
| Derivative assets | 95 | 1,912 | 841 | |
| Available-for-sale financial assets | 7,079 | 11,360 | 62,646 | |
| Total | ¥17,649 | ¥21,539 | \$156,186 | |
| Current assets | ¥ 8,652 | ¥ 8,228 | \$ 76,566 | |
| Non-current assets | 8,996 | 13,310 | 79,611 | |
| Total | ¥17,649 | ¥21,539 | \$156,186 | |

13. Investments in Associates and Joint Ventures

The carrying amount of the Group's investment in associates is as follows:

| | Million | Thousand s of U.S. dollars | |
|---|------------------------|-------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Carrying amount of investments in associates (at the reporting date) | ¥2,229 | ¥1,987 | \$19,726 |

Income and other comprehensive income attributable to the Group are as follows:

| | Million | Thousands of U.S. dollars | |
|--|---|---|---|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Net income attributable to the Group | ¥62 | ¥196 | \$549 |
| Other comprehensive income (loss) attributable to the Group | 18 | (0) | 159 |
| Total | ¥80 | ¥196 | \$708 |

14. Trade and Other Payables

The breakdown of trade and other payables at 31st December, 2017 and 2016 is as follows:

| | Million | Thousands of U.S. dollars | |
|----------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Trade payables | ¥32,913 | ¥41,554 | \$291,265 |
| Other payables | 8,536 | 8,250 | 75,540 |
| Others | 6,267 | 6,056 | 55,460 |
| Total | ¥47,717 | ¥55,861 | \$422,274 |

15. Interest-bearing Bonds and Borrowings

The breakdown of interest-bearing bonds and borrowings at 31st December, 2017 and 2016 is as follows:

| | Millions of yen | | | | Thousands of U.S. dollars |
|--|---------------------|---------------------|---------------------------------------|----------------------|---------------------------|
| | 31st December, 2017 | 31st December, 2016 | Average interest rate (%) (Note 1) | Maturity (Note 1) | 31st December, 2017 |
| Financial liabilities measured at amortized cost: | | | | | |
| Current borrowings | ¥ 5,590 | ¥ 2,444 | 0.20~0.56 | - | \$ 49,469 |
| Non-current borrowings due within one year | 17,063 | 23,534 | 0.19~1.70 | - | 151,000 |
| Non-current borrowings (excluding those due within one year) | 126,788 | 130,938 | 0.19~6.25 | 2019-2027 | 1,122,018 |
| Interest-bearing bonds due within one year | - | 19,981 | - | - | - |
| Interest-bearing bonds (excluding those due within one year) | 29,918 | 29,881 | 0.15 | 2019-2021 | 264,761 |
| Total | ¥179,359 | ¥206,780 | | | \$1,587,248 |
| Current liabilities | ¥ 22,653 | ¥ 45,960 | | | \$ 200,469 |
| Non-current liabilities | 156,706 | 160,820 | | | 1,386,779 |
| Total | ¥179,359 | ¥206,780 | | | \$1,587,248 |

(Note 1) Average interest rate and maturity are based on the respective information at the end of fiscal year 2017.

A summary of the issuing conditions of the bonds is as follows:

| | | | Millior | is of yen | Thousands of U.S. dollars | - | | |
|----------------------------|--------------------------------|----------------------------|------------------------|-------------------|------------------------------|-------------------|------------|----------------------------|
| Company | Name of bond | Date of issuance | 31st December, 2017 | 1st January, 2017 | 31st December, 2017 | Interest rate (%) | Collateral | Date of maturity |
| DMG MORI CO., LTD. | 3rd debenture bond (Note 1) | 13th June, 2013 | - | 19,981 | - | 0.515 | None | 13th June, 2017 |
| DMG MORI CO., LTD. | 4th debenture bond (Note 1) | 26th September, 2016 | 19,953 | 19,927 | 176,575 | 0.120 | None | 26th September, 2019 |
| DMG MORI CO., LTD. | 5th debenture bond (Note 1) | 26th September, 2016 | 9,964 | 9,954 | 88,177 | 0.210 | None | 24th September, 2021 |
| Total | | | ¥29,918 | ¥49,863 | \$264,761 | | | |
| Current liabilities | | | ¥ – | ¥19,981 | \$ - | | | |
| Non-current liabilities | | | 29,918 | 29,882 | 264,761 | | | |

[Note 1] With respect to the outstanding balances of the 4th and 5th debenture bonds, adjustments to these principal portions are made in accordance with IFRS. Annual maturities of bonds subsequent to 31st December, 2017 over five years are summarized as follows:

| | | Millions of yen | | |
|-----------------|-----------------------------------|-----------------------------------|---------------------------------------|--------------------------------------|
| Within one year | Over one year within two years | Over two years within three years | Over three years within four years | Over four years within five years |
| ¥- | ¥19,953 | ¥- | ¥9,964 | ¥- |
| | | Thousands of U.S. dollars | | |
| Within one year | Over one year within two years | Over two years within three years | Over three years within four years | Over four years within five years |
| \$- | \$176,575 | \$- | \$88,177 | \$- |

16. Other Financial Liabilities

The breakdown of other financial liabilities at 31st December, 2017 and 2016 is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|--|---------------------|---------------------|---------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Financial liabilities measured at amortized cost: | | | |
| Payment obligation for non-controlling interests (Note 1) | ¥101,691 | ¥ 92,802 | \$ 899,920 |
| Preferred stocks (Note 2) | 14,838 | - | 131,310 |
| Finance lease obligations | 4,580 | 5,569 | 40,531 |
| Others | 1,185 | - | 10,487 |
| Financial liabilities at fair value through profit or loss: | | | |
| Derivative liabilities | 2,469 | 11,249 | 21,850 |
| Total | ¥124,765 | ¥109,620 | \$1,104,115 |
| Current liabilities | ¥ 3,857 | ¥ 14,796 | \$ 34,133 |
| Non-current liabilities | 120,907 | 94,824 | 1,069,973 |
| Total | ¥124,765 | ¥109,620 | \$1,104,115 |

(Note 1) The payment obligation for non-controlling interests arose from the DPLTA. For details, please refer to Note 34 "Domination and Profit and Loss Transfer Agreement." (Note 2) A certain subsidiary of the Group issued the cumulative preferred stocks. The preferred stocks are not converted into corporate bonds and the Group has the obligation to redeem the principal in cash to the shareholders on a particular date (5 months after issuance). Considering these contractual conditions, the preferred stocks are classified as financial liabilities because the Group has the contractual obligation to delivery cash under IFRS on redemption date. Related interest will be paid in terms of base amount calculated from 6 month Japanese Yen TIBOR. If interest amount is lower than this base amount, this balance due will be accumulated to next fiscal year.

The net present value of finance lease obligations at 31st December, 2017 and 2016 is as follows:

| | | | | | Thursday (ULC) dollars |
|--|---------------------|---------------------|---------------------------------------|----------------------|------------------------|
| | | s of yen | | | |
| | 31st December, 2017 | 31st December, 2016 | Average interest rate (%) (Note 1) | Maturity (Note 2) | 31st December, 2017 |
| Minimum lease payments | ¥5,767 | ¥6,664 | - | - | \$51,035 |
| Less: Future financing costs | (1,186) | (1,095) | - | - | (10,496) |
| Net present value of minimum lease payments | 4,580 | 5,569 | - | - | 40,531 |
| Current finance lease obligations (Not later than one year) | 724 | 872 | 3.51 | - | 6,407 |
| Non-current finance lease obligations (Later than one year) | 3,856 | 4,696 | 5.34 | 2019-2029 | 34,124 |
| Total | ¥4,580 | ¥5,569 | - | - | \$40,531 |

[Note 1] Average interest rate is based on the weighted-average rate that applied to interest rates and balances at the end of fiscal year 2017. (Note 2) Average interest rate and maturity are based on the respective information at the end of fiscal year 2017.
17. Operating Leases

Minimum lease payments under operating lease contracts recognized as an expense are as follows:

| | Million | Millions of yen | | |
|---------------------------|---|---|---|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | |
| Minimum lease payments | ¥4,831 | ¥5,432 | \$42,752 | |
| Total | ¥4,831 | ¥5,432 | \$42,752 | |

Minimum lease payments are included in "Other expenses" in the consolidated statement of profit or loss.

Future minimum lease payments under non-cancelable operating lease contracts are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|---|------------------------|------------------------|------------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Not later than one year | ¥ 3,981 | ¥ 4,337 | \$ 35,230 |
| Later than one year and not later than five years | 9,668 | 10,323 | 85,558 |
| Later than five years | 1,606 | 3,283 | 14,212 |
| Total | ¥15,256 | ¥17,944 | \$135,009 |
| | | | |

Operating lease payments represent rental fees payable by the Group for certain rental buildings. Some lease contracts include renewal options. However, there are no significant restrictions on variable lease fees, purchase options, sublease agreements, escalation clauses and significant limits under any lease contracts.

18. Retirement Benefits

The Company and its consolidated subsidiaries have established funded and unfunded defined benefit pension plans and defined contribution pension plans. In addition to the above, one domestic consolidated subsidiary participates in a small- and medium-sized enterprise mutual aid plan.

(1) Defined benefit plans

 Defined contribution plans adopted in Japan as postemployment benefit

The Company and its domestic consolidated subsidiaries have established defined contribution pension plans. Although certain domestic subsidiaries had established defined benefit pension plans, the change of post-employment benefits from defined benefit plans to defined contribution plans has been completed.

Defined benefit plans of overseas subsidiaries as postemployment benefits.

Overseas consolidated subsidiaries, mainly in Germany and Switzerland, have primarily established defined benefit plans for post-employment benefits. The contributions to these plans are determined based on the employee's length of service, salary level and other factors depending on general laws, economic conditions and taxation regulations of the respective countries. These plans expose the Group to the risks arising from fluctuations in interest rates, market and foreign exchanges rates, as well as actuarial differences due to changes in estimations, such as average life expectancy.

For the year ended 31st December, 2016, certain subsidiaries in Switzerland recognized a gain on settlement of defined benefit plans. This gain was included in past service cost.

Assets and liabilities of defined benefit plans recognized in the consolidated statement of financial position at 31st December, 2017 and 2016 are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|--|------------------------|------------------------|------------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Present value of defined benefit obligations | ¥10,116 | ¥10,645 | \$89,522 |
| Fair value of plan assets | (3,862) | (4,444) | (34,177) |
| Funded status | 6,254 | 6,200 | 55,345 |
| Effect of asset ceiling | - | - | - |
| Net defined benefit liabilities | ¥ 6,254 | ¥ 6,200 | \$55,345 |
| Amounts in consolidated statement of financial position: | | | |
| Employee defined benefit assets | - | - | - |
| Net employee defined benefit liabilities | ¥ 6,254 | ¥ 6,200 | \$55,345 |

Costs of defined benefit plans recognized in the consolidated statements of profit or loss for the year ended 31st December, 2017 and 2016 are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|-----------------------------|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Current service cost | ¥195 | ¥460 | \$1,726 |
| Past service cost | 39 | (554) | 345 |
| Subtotal of operating costs | 234 | (93) | 2,071 |
| Net interest cost | 70 | 93 | 619 |
| Subtotal of financial costs | 70 | 93 | 619 |
| Other | - | 4 | - |
| Total | ¥304 | ¥ 3 | \$2,690 |

The movement in the present value of defined benefit obligations for the year ended 31st December, 2017 and 2016 is as follows:

The movement in the fair value in the plan assets for the year ended 31st December, 2017 and 2016 is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 [1st January, 2017 through 31st December, 2017] |
| Beginning balance | ¥10,645 | ¥11,862 | \$94,204 |
| Pension cost charged to profit or loss: | | | |
| Current service cost | 195 | 460 | 1,726 |
| Past service cost | 39 | (554) | 345 |
| Interest cost | 106 | 158 | 938 |
| Subtotal | 340 | 64 | 3,009 |
| Remeasurement (gains) losses in other comprehensive income: | | | |
| Actuarial gains and losses arising from changes in demographic assumptions | - | (276) | - |
| Actuarial gains and losses arising from changes in financial assumptions | 29 | 261 | 257 |
| Actuarial gains and losses arising from experience adjustments | 218 | 336 | 1,929 |
| Subtotal | 248 | 321 | 2,195 |
| Other: | | | |
| Benefits paid | (793) | (795) | (7,018) |
| Contributions to the plan by participants | 82 | 178 | 726 |
| Paid due to settlement | - | (863) | - |
| Acquisitions through business combinations | - | 34 | - |
| Decrease through business disposals | (114) | - | (1,009) |
| Exchange differences on translation of foreign operations | (292) | (158) | (2,584) |
| Subtotal | (1,117) | (1,603) | (9,885) |
| Ending balance | ¥10,116 | ¥10,645 | \$89,522 |

| | Millions of yen | | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Beginning balance | ¥4,444 | ¥5,638 | \$39,327 |
| Amount recognized in profit or loss: | | | |
| Interest income | 36 | 65 | 319 |
| Subtotal | 36 | 65 | 319 |
| Amount recognized in other comprehensive income: | | | |
| Remeasurements of fair value of plan assets | | | |
| Return on plan assets | 47 | (68) | 416 |
| Subtotal | 47 | (68) | 416 |
| Other: | | | |
| Contributions to the plan by the employer | 478 | 507 | 4,230 |
| Benefits paid | (773) | (691) | (6,841) |
| Contributions to the plan by participants | 17 | 221 | 150 |
| Paid due to settlement | - | (863) | - |
| Exchange differences on translation of foreign operations | (389) | (365) | (3,442) |
| Subtotal | (666) | (1,190) | (5,894) |
| Ending balance | ¥3,862 | ¥4,444 | \$34,177 |

[Note] The Group expects to contribute ¥546 million (\$4,832 thousand) to its defined benefit pension plans for the year ending 31st December, 2017.

Significant actuarial assumptions used for the calculation of the present value of defined benefit obligations are as follows:

| | 31st December, 2017 | 31st December, 2016 |
|---------------------------------------|---------------------|---------------------|
| Discount rates (%) | 0.59-3.01 | 0.45-1.31 |
| Rate of increase in benefits paid (%) | 0.00-2.00 | 0.00-2.00 |

[Note] The weighted average duration of the defined benefit obligation as of 31st December, 2017 and 2016 were 13.5 years and 15.3 years, respectively. The sensitivity analysis does not consider correlations between assumptions, assuming that all other assumptions are held constant. In practice, changes in some of the assumptions may occur in a correlated manner. When calculating the sensitivity of the defined benefit obligations, the same method has been applied as when calculating the defined benefit obligations in the consolidated statement of financial position.

| | Millions of yen | | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Discount rate: | | | |
| 0.25% increase | ¥(234) | ¥(326) | \$(2,071) |
| 0.25% decrease | 317 | 348 | 2,805 |
| Changes in rate of increase in benefits paid: | | | |
| 0.25% increase | 213 | 218 | 1,885 |
| 0.25% decrease | (205) | (209) | (1,814) |

The breakdown of the fair value of plan assets at 31st December, 2017 is as follows:

| | Millions of yen | | |
|------------------------------|--------------------------------|--|--------|
| | Quoted prices in active market | Quoted prices in active market unavailable | Total |
| Cash and cash equivalents | ¥- | ¥ - | ¥ - |
| Equities | - | - | - |
| Bonds | - | - | - |
| Real estate | - | - | - |
| Insurance | - | 2,209 | 2,209 |
| Other | - | 1,652 | 1,652 |
| Total | ¥– | ¥3,862 | ¥3,862 |

| | Thousands of U.S. dollars | | |
|------------------------------|--------------------------------|--|----------|
| | Quoted prices in active market | Quoted prices in active market unavailable | Total |
| Cash and cash equivalents | \$- | \$ - | \$ - |
| Equities | - | - | - |
| Bonds | - | - | - |
| Real estate | - | - | - |
| Insurance | - | 19,549 | 19,549 |
| Other | - | 14,619 | 14,619 |
| Total | \$- | \$34,177 | \$34,177 |

The breakdown of the fair value of plan assets at 31st December, 2016 is as follows:

| | Millions of yen | | |
|------------------------------|--------------------------------|--|--------|
| | Quoted prices in active market | Quoted prices in active market unavailable | Total |
| Cash and cash equivalents | ¥ 21 | ¥ – | ¥ 21 |
| Equities | 209 | - | 209 |
| Bonds | 470 | - | 470 |
| Real estate | 159 | - | 159 |
| Insurance | - | 2,015 | 2,015 |
| Other | - | 1,568 | 1,568 |
| Total | ¥860 | ¥3,584 | ¥4,444 |

The investment strategy of the global pension assets in the Group is based on the goal of assuring pension payments over the long term. In Germany, plan assets mainly comprise insurance contracts and are held by a legally separate and independent entity whose sole purpose is to hedge and finance employee benefit liabilities. In Switzerland, external plan assets are invested in a traditional pension fund. Plan assets in Switzerland are subject to customary minimum funding requirements.

(2) Defined contribution plans

The expenses related to the defined contribution plans charged to profit or loss for the year ended 31st December, 2017 and 2016 are as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Expenses for defined contribution plans | ¥2,807 | ¥2,961 | \$24,841 |

19. Provisions

The movement in provisions for the year ended 31st December, 2017 and 2016 is as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017)

| | | | Millions of yen | | |
|---|-------------------------------------|------------------------------------|----------------------------------|------------------|----------|
| | Provision for product warranties | Provision for sales commissions | Provision for personnel costs | Other provisions | Total |
| Beginning balance | ¥4,820 | ¥4,149 | ¥13,345 | ¥7,818 | ¥30,133 |
| Increase | 5,478 | 2,377 | 10,343 | 1,815 | 20,014 |
| Decrease due to intended use | (4,753) | (1,621) | (8,690) | (2,313) | (17,378) |
| Reversal | (65) | (395) | (620) | (578) | (1,658) |
| Increase due to passage of time | 0 | - | 1 | 0 | 2 |
| Increase due to business combinations | 30 | - | 4 | 21 | 56 |
| Exchange differences on translation of foreign operations | 388 | 330 | 1,008 | 961 | 2,689 |
| Ending balance | ¥5,899 | ¥4,840 | ¥15,392 | ¥7,727 | ¥33,859 |

| | Thousands of U.S. dollars | | | | |
|---|-------------------------------------|------------------------------------|----------------------------------|------------------|-----------|
| | Provision for product warranties | Provision for sales commissions | Provision for personnel costs | Other provisions | Total |
| Beginning balance | \$42,655 | \$36,717 | \$118,097 | \$69,186 | \$266,664 |
| Increase | 48,478 | 21,035 | 91,531 | 16,062 | 177,115 |
| Decrease due to intended use | (42,062) | (14,345) | (76,903) | (20,469) | (153,788) |
| Reversal | (575) | (3,496) | (5,487) | (5,115) | (14,673) |
| Increase due to passage of time | 3 | - | 9 | 0 | 18 |
| Increase due to business combinations | 265 | - | 35 | 186 | 496 |
| Exchange differences on translation of foreign operations | 3,434 | 2,920 | 8,920 | 8,504 | 23,796 |
| Ending balance | \$52,204 | \$42,832 | \$136,212 | \$68,381 | \$299,637 |

Fiscal year 2016 (1st January, 2016 through 31st December, 2016)

| | | | Millions of yen | | |
|---|-------------------------------------|------------------------------------|----------------------------------|------------------|----------|
| | Provision for product warranties | Provision for sales commissions | Provision for personnel costs | Other provisions | Total |
| Beginning balance | ¥4,652 | ¥5,281 | ¥14,251 | ¥6,354 | ¥30,541 |
| Increase | 2,868 | 2,429 | 8,637 | 7,114 | 21,050 |
| Decrease due to intended use | (2,330) | (2,812) | (8,026) | (4,680) | (17,848) |
| Reversal | (186) | (224) | (715) | (653) | (1,780) |
| Increase due to passage of time | (0) | - | 1 | (5) | (3) |
| Increase due to business combinations | 14 | - | 90 | 12 | 117 |
| Exchange differences on translation of foreign operations | (198) | (525) | (894) | (325) | (1,942) |
| Ending balance | ¥4,820 | ¥4,149 | ¥13,345 | ¥7,818 | ¥30,133 |

The breakdown of provisions at 31st December, 2017 and 2016 is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|-------------------------------------|------------------------|------------------------|------------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Current liabilities: | | | |
| Provision for product warranties | ¥ 5,899 | ¥ 4,820 | \$ 52,204 |
| Provision for sales commissions | 4,567 | 4,040 | 40,416 |
| Provision for personnel costs | 12,325 | 10,262 | 109,071 |
| Other provisions | 7,094 | 6,922 | 62,779 |
| Subtotal | 29,886 | 26,045 | 264,478 |
| Non-current liabilities: | | | |
| Provision for sales commissions | 273 | 108 | 2,416 |
| Provision for personnel costs | 3,067 | 3,083 | 27,142 |
| Other provisions | 632 | 896 | 5,593 |
| Subtotal | 3,973 | 4,088 | 35,159 |
| Total | ¥33,859 | ¥30,133 | \$299,637 |

Provision for product warranties

Provision for product warranties is calculated based on the actual historical ratio of repair costs as a portion of the corresponding product sales to provide for future repairs during free-of-charge product warranty periods.

Provision for sales commissions

Provision for sales commissions is calculated based on the estimated commissions to be paid to sales dealers.

Provision for personnel costs

Provision for personnel costs mainly consists of a provision for annual paid leaves and bonuses.

The outflows of economic benefits related to provisions included in current liabilities and non-current liabilities are expected within one year from the end of the reporting period and after one year from the end of the reporting period, respectively.

20. Income Taxes

(1) Deferred tax assets and liabilities

The breakdown and movement of deferred tax assets and liabilities by major causes of their occurrence for each corresponding fiscal year and period are as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017)

| | Millions of yen | | | | |
|-------------------------------------|-------------------|--|--|---|----------------|
| | Beginning balance | Increase due to business combinations | Recognized in profit or loss (Note 1) | Recognized in other comprehensive income | Ending balance |
| Deferred tax assets : | | | | | |
| Intangible assets | ¥ 2,503 | ¥ - | ¥ 218 | ¥ - | ¥ 2,722 |
| Property, plant and equipment | 1,051 | - | (63) | - | 988 |
| Inventories | 4,371 | - | (433) | - | 3,937 |
| Trade and other receivables | 1,415 | - | (85) | - | 1,329 |
| Unused tax losses (Note 2) | 4,803 | - | (1,989) | - | 2,813 |
| Other | 4,760 | - | 1,576 | - | 6,336 |
| Total | 18,905 | - | (777) | - | 18,128 |
| Deferred tax liabilities: | | | | | |
| Intangible assets | (12,182) | (68) | (417) | - | (12,668) |
| Property, plant and equipment | (2,493) | - | 15 | - | (2,478) |
| Available-for-sale financial assets | (1,623) | - | (1) | 766 | (858) |
| Inventories | (180) | - | (113) | - | (293) |
| Other | (3,925) | - | 248 | 85 | (3,590) |
| Total | (20,405) | (68) | (268) | 852 | (19,890) |
| Net amount | ¥ (1,500) | ¥(68) | ¥(1,045) | ¥852 | ¥ (1,762) |

| | | Thousands of U.S. dollars | | | | |
|-------------------------------------|-------------------|--|---|---|----------------|--|
| | Beginning balance | Increase due to business combinations | Recognized in profit or loss(Note 1) | Recognized in other comprehensive income | Ending balance | |
| Deferred tax assets : | | | | | | |
| Intangible assets | \$ 22,150 | \$ - | \$ 1,929 | \$ - | \$ 24,088 | |
| Property, plant and equipment | 9,301 | - | (558) | - | 8,743 | |
| Inventories | 38,681 | - | (3,832) | - | 34,841 | |
| Trade and other receivables | 12,522 | - | (752) | - | 11,761 | |
| Unused tax losses (Note 2) | 42,504 | - | (17,602) | - | 24,894 | |
| Other | 42,124 | - | 13,947 | - | 56,071 | |
| Total | 167,301 | - | (6,876) | - | 160,425 | |
| Deferred tax liabilities: | | | | | | |
| Intangible assets | (107,805) | (602) | (3,690) | - | (112,106) | |
| Property, plant and equipment | (22,062) | - | 133 | - | (21,929) | |
| Available-for-sale financial assets | (14,363) | - | (9) | 6,779 | (7,593) | |
| Inventories | (1,593) | - | (1,000) | - | (2,593) | |
| Other | (34,735) | - | 2,195 | 752 | (31,770) | |
| Total | (180,575) | (602) | (2,372) | 7,540 | (176,018) | |
| Net amount | \$ (13,274) | \$(602) | \$ (9,248) | \$7,540 | \$ (15,593) | |

Fiscal year 2016 (1st January, 2016 through 31st December, 2016)

| | Millions of yen | | | | |
|-------------------------------------|-------------------|--|--|---|----------------|
| | Beginning balance | Increase due to business combinations | Recognized in profit or loss (Note 1) | Recognized in other comprehensive income | Ending balance |
| Deferred tax assets : | | | | | |
| Intangible assets | ¥ 1,538 | ¥ – | ¥ 965 | ¥ – | ¥ 2,503 |
| Property, plant and equipment | 910 | - | 140 | - | 1,051 |
| Inventories | 5,155 | - | (783) | - | 4,371 |
| Trade and other receivables | 1,179 | - | 236 | - | 1,415 |
| Unused tax losses (Note 2) | 5,512 | - | (709) | - | 4,803 |
| Other | 4,821 | - | (61) | - | 4,760 |
| Total | 19,117 | - | (212) | - | 18,905 |
| Deferred tax liabilities: | | | | | |
| Intangible assets | (13,642) | (191) | 1,650 | - | (12,182) |
| Property, plant and equipment | (2,676) | (1) | 185 | - | (2,493) |
| Available-for-sale financial assets | (2,530) | - | 10 | 896 | (1,623) |
| Inventories | (166) | - | (14) | - | (180) |
| Other | (4,719) | - | 492 | 301 | (3,925) |
| Total | (23,735) | (193) | 2,324 | 1,197 | (20,405) |
| Net amount | ¥ (4,617) | ¥(193) | ¥2,112 | ¥1,197 | ¥ (1,500) |

(Note 1) Exchange differences arising on translation of foreign operations are included.
 (Note 2) The cause of deferred tax assets associated with unused tax losses as of 31st December, 2017 and 2016 is non-recurring in nature, and it is probable that the tax benefit will be realizable based on the forecast of future taxable income in the business plan approved by the Board of Directors of the Company.

(2) Unrecognized deferred tax assets

Deductible temporary differences, unused tax losses, and unused tax credits for which no deferred tax asset is recognized are as follows:

| Million | Thousands of U.S. dollars | |
|------------------------|--|---|
| 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| ¥13,221 | ¥10,540 | \$117,000 |
| 11,795 | 12,759 | 104,381 |
| 297 | 335 | 2,628 |
| ¥25,313 | ¥23,635 | \$224,009 |
| | Million 31st December, 2017 ¥13,221 11,795 297 ¥25,313 | Millions of yen 31st December, 2017 31st December, 2016 ¥13,221 ¥10,540 11,795 12,759 297 335 ¥25,313 ¥23,635 |

Unused tax losses and unused tax credits for which no deferred tax asset is recognized will expire as follows:

| | Million | Millions of yen | | |
|--------------------|------------------------|------------------------|------------------------|--|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 | |
| Unused tax losses | | | | |
| Year 1 | ¥ 401 | ¥ 833 | \$ 3,549 | |
| Year 2 | 101 | 415 | 894 | |
| Year 3 | 1,428 | 788 | 12,637 | |
| Year 4 | 1,010 | 1,868 | 8,938 | |
| Year 5 or later | 8,854 | 8,853 | 78,354 | |
| Total | ¥11,795 | ¥12,759 | \$104,381 | |
| Unused tax credits | | | | |
| Year 1 | ¥ 264 | ¥ – | \$ 2,336 | |
| Year 2 | 32 | 302 | 283 | |
| Year 3 | - | 32 | - | |
| Year 4 | - | - | - | |
| Year 5 or later | - | - | - | |
| Total | ¥ 297 | ¥ 335 | \$ 2,628 | |

(3) Income tax expense

The breakdown of income tax expense recognized in profit or loss is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Current income tax expense | ¥8,716 | ¥6,770 | \$77,133 |
| Deferred income tax expense: | | | |
| Relating to origination and reversal of temporary differences | (1,271) | (1,545) | (11,248) |
| Changes in tax rate or imposition of new taxation | 1,892 | 127 | 16,743 |
| Unused tax losses recognized in prior years or temporary differences | (209) | (667) | (1,850) |
| Total | 411 | (2,085) | 3,637 |
| Total income taxes | ¥9,127 | ¥4,684 | \$80,770 |

(4) Reconciliation of effective tax rate

The Company is mainly subject to corporate tax, inhabitant tax and enterprise tax. The effective statutory tax rate calculated based on these taxes was 30.69% and 32.83% for the year ended 31st December, 2017 and 2016, respectively. Foreign subsidiaries are subject to income taxes in their respective jurisdictions.

The reconciliation of the effective statutory tax rate and the average actual tax rates for fiscal year 2017 and 2016 is as follows:

| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) |
|---|---|---|
| Effective statutory tax rate | 30.69% | 32.83% |
| Non-deductible expenses, such as entertainment expenses | 3.49 | (103.23) |
| Tax credits | (0.83) | 0.01 |
| Non-taxable income, such as dividend income | (0.10) | 2.35 |
| Inhabitant tax on per capita basis | 0.17 | (3.93) |
| Temporary differences arising from investments in associates | 0.08 | 76.66 |
| Changes in unrecognized deferred tax assets | (3.44) | (150.30) |
| Effect of change in applicable tax rates | 7.63 | (11.94) |
| Gain on step acquisition | - | (3.73) |
| Effect from elimination of gain on sales of shares of the subsidiary | - | (358.06) |
| Effective tax rate difference in overseas consolidated subsidiaries | (1.30) | 80.22 |
| Other | 0.41 | (0.84) |
| Average actual tax rates | 36.80% | (439.96)% |

(5) Revision of amounts of deferred tax assets and deferred tax liabilities due to changes in tax rate, such as corporate tax, etc.

Based on the enactment of the new US tax legislation on 22 December 2017, which includes a reduction of the federal corporate tax rate from 35 percent to 21 percent from fiscal year 2018. The Group has evaluated the deferred tax balances in the US and recognized a one-time deferred tax charge of ¥1,890 million (\$16,726 thousand) for the year ended 31st December, 2017, arising from reversal of the deferred tax assets on the loss carryforward of the past years and devaluation.

21. Equity and Other Components of Equity

(1) Number of authorized shares and issued shares

The number of authorized shares and issued shares is as follows:

| | Shares | | | |
|---|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | | |
| Number of authorized shares | 300,000,000 | 300,000,000 | | |
| Number of issued shares: | | | | |
| At the beginning of reporting period | 132,943,683 | 132,943,683 | | |
| Increase/(decrease) | (6,990,000) | - | | |
| At the end of reporting period | 125,953,683 | 132,943,683 | | |

The shares issued by the Company are ordinary shares with no par value. Issued shares are fully paid-in.

The number of issued shares decreased by 6,990,000 during fiscal year 2017 is due to cancellation of treasury stocks.

(2) Treasury shares

The movement in treasury shares is as follows:

| | Shares | | | | |
|--------------------------------------|--|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | | | |
| At the beginning of reporting period | 12,924,920 | 12,924,543 | | | |
| Increase (Notes 1 and 2) | 2,619,933 | 440 | | | |
| Decrease (Note 1 and 2) | 10,490,000 | 63 | | | |
| At the end of reporting period | 5,054,853 | 12,924,920 | | | |

[Note 1] The number of treasury shares increased by 2,619,933 shares due to purchases of 2,619,100 treasury shares based on the resolution in the Board of Directors' meeting and purchases of 833 shares of treasury shares less than one unit during fiscal year 2017. The number of treasury shares decreased by 10,490,000 shares due to disposal of 3,500,000 treasury shares [46,446 million, \$57,044 thousand] at 31st March, 2017, cancellation of 3,500,000 treasury shares (¥6,446 million, \$57,044 thousand] at 31st March, 2017 based on the resolution in the Board of Directors' meeting on 13th January, 2017, and cancellation of 3,490,000 treasury shares [¥6,401 million, \$56,646 thousand] at 30th June, 2017 based on the resolution in the Board of Directors' meeting on 10th May, 2017, for the purpose of supporting the social contribution activities of Mori Manufacturing Research and Technology Foundation.

(Note 2) The number of treasury shares increased by 440 shares due to purchases of treasury shares less than one unit, and decreased by 63 shares due to sales of less than one unit during fiscal year 2016.

(3) Capital surplus and retained earnings

The Corporation Law of Japan (the "Law") provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus and retained earnings be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals to 25% of the capital stock account.

(4) Hybrid capital

The Company raised funds in the amounts of ¥40 billion through a perpetual subordinated loan (hereinafter, "the subordinated loan") and ¥10 billion through perpetual subordinated bonds (hereinafter, "the subordinated bonds") in September, 2016. The subordinated loan and the subordinated bonds are classified as equity instruments since no date for repayment of the principal is specified and optional deferral of interest payments is possible. The proceeds from the subordinated loan and the subordinated bonds after deducting issue costs are recorded as "Hybrid capital" under "Equity" in the consolidated statement of financial position.

| 1. | Overview | of | Subor | dinated | Loan |
|----|-----------------|----|-------|---------|------|
|----|-----------------|----|-------|---------|------|

| (1)Amount | ¥40 billion |
|---|---|
| (2)Lender | Mizuho Bank, Ltd., and Sumitomo Mitsui Banking Corporation |
| (3)Execution date | 20th September, 2016 |
| (4)Repayment date | No repayment date is specified. Provided, however, that on each interest payment date from 20th September, 2021 onward, optional repayment of all or part of the principal is possible. |
| (5)Interest rate | From 20th September, 2016 to 20th September, 2026: Variable interest based on 6-month Japanese yen TIBOR From 21st September, 2026 onward: Variable interest stepped up by 1.00% |
| (6)Clauses relating to payment of interest | Deferral of interest payment is optional. |
| (7)Subordinated loan clause | The subordinated creditors have right to claim for repayment only after the all claims by senior creditors are satisfied in case an event defined in the loan contract such as liquidation occurs. |

2. Overview of Subordinated Bonds

| (1)Amount | ¥10 billion |
|---|--|
| (2)Execution date | 2nd September, 2016 |
| (3)Repayment date | No repayment date is specified. Provided, however, that on each interest payment date from 2nd September, 2021 onward, optional repayment of all principal is possible. |
| (4)Interest rate | From 2nd September, 2016 to 2nd September, 2021: Fixed interest From 3rd September, 2021 onward: Variable interest based on 6-month Japanese yen LIBOR |
| (5)Clauses relating to payment of interest | Deferral of interest payment is optional. |
| (6)Subordinated loan clause | The subordinated creditors have right to claim for repayment only after the all claims by senior creditors are satisfied in case an event defined in the loan contract such as liquidation occurs. When making optional redemption or repurchase of the subordinated bonds, it is assumed that the subordinated bonds are being replaced with equivalent bonds or loans certified by a credit rating agency, that satisfy necessary conditions to be classified as equity instruments. Provided, however, that if, after five years elapse, both of the following items are satisfied, it is possible not to refinance with equivalent financial instruments. |
| (7)Replacement restrictions | (a)Consolidated shareholders' equity after the adjustment is more than ¥151.2 billion. (b)The consolidated equity ratio after the adjustment is more than 26.8%. The values stated above shall be calculated according to the following method. (a)Consolidated shareholders' equity after the adjustment is equal to total equity after the adjustment is equal to total equity after the adjustment is equal to total equity after the adjustment is equal to consolidated shareholders' equity after the adjustment is equal to consolidated shareholders' equity after the adjustment is equal to consolidated shareholders' equity after the adjustment as calculated above divided by total assets. |

3. Paid amount for hybrid capital

| | | Payment | t amount |
|--------------------|-------------------------|-----------------|------------------------------|
| Category | Payment date | Millions of yen | Thousands of U.S. dollars |
| | 21st March, 2017 | ¥440 | \$3,894 |
| Subordinated loan | 20th September, 2017 | ¥442 | \$3,912 |
| | 2nd March, 2017 | ¥ 93 | \$ 823 |
| Subordinated bonds | 1st September, 2017 | ¥ 93 | \$ 823 |

4. Payment amount for hybrid capital

| | | Payment | t amount |
|--------------------|------------------|-----------------|------------------------------|
| Category | Payment date | Millions of yen | Thousands of U.S. dollars |
| Subordinated loan | 20th March, 2018 | ¥437 | \$3,867 |
| Subordinated bonds | 1st March, 2018 | ¥ 93 | \$ 823 |

(5) Other components of equity

The movement in other components of equity is as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017)

| | | Millions of yen | | | | | |
|---|---|---|--|--|---------------|-----------|--|
| | Re-measurements of defined benefit plans | Exchange differences on translation of foreign operations | Effective portion of changes in fair value of cash flow hedges | Changes in fair value measurements of available- for-sale financial assets | Stock options | Total | |
| Beginning balance | ¥ - | ¥(15,613) | ¥(167) | ¥4,429 | ¥ 83 | ¥(11,266) | |
| Other comprehensive income (loss) | (129) | 4,048 | (31) | (2,584) | - | 1,302 | |
| Share-based payments | - | - | - | - | 328 | 328 | |
| Transfer from other components of equity to retained earnings | 129 | - | - | - | - | 129 | |
| Ending balance | ¥ - | ¥(11,564) | ¥(198) | ¥1,845 | ¥412 | ¥ (9,504) | |

| | | Thousands of U.S dollars | | | | | | |
|---|---------------------------|--------------------------|---|--|--|---------------|------------|--|
| | Re-measure defined ben | ments of efit plans | Exchange differences on translation of foreign operations | Effective portion of changes in fair value of cash flow hedges | Changes in fair value measurements of available- for-sale financial assets | Stock options | Total | |
| Beginning balance | \$ | - | \$(138,168) | \$(1,478) | \$39,195 | \$ 735 | \$(99,699) | |
| Other comprehensive income (loss) | (1, | 142) | 35,823 | (274) | (22,867) | - | 11,522 | |
| Share-based payments | | - | - | - | - | 2,903 | 2,903 | |
| Transfer from other components of equity to retained earnings | 1, | 142 | - | - | - | - | 1,142 | |
| Ending balance | \$ | - | \$(102,336) | \$(1,752) | \$16,327 | \$3,646 | \$ 84,106 | |

Fiscal year 2016 (1st January, 2016 through 31st December, 2016)

| | | Millions of yen | | | | | |
|---|---|---|--|--|---------------|-----------|--|
| | Re-measurements of defined benefit plans | Exchange differences on translation of foreign operations | Effective portion of changes in fair value of cash flow hedges | Changes in fair value measurements of available- for-sale financial assets | Stock options | Total | |
| Beginning balance | ¥ – | ¥ (2,674) | ¥ (89) | ¥6,164 | ¥ – | ¥ 3,399 | |
| Other comprehensive income (loss) | 164 | (12,938) | (77) | (1,734) | - | (14,585) | |
| Share-based payments | - | - | - | - | 83 | 83 | |
| Transfer from other components of equity to retained earnings | (164) | - | - | - | - | (164) | |
| Ending balance | ¥ – | ¥(15,613) | ¥(167) | ¥4,429 | ¥83 | ¥(11,266) | |

Other components of equity are explained as follows:

Remeasurements of defined benefit plans

Remeasurements of defined benefit plans comprise actuarial gains and losses, the return on plan assets, excluding amounts included in interest income, and any changes in the effect of the asset ceiling, excluding amounts included in interest income.

Exchange differences on translation of foreign operations Exchange differences on translation of foreign operations arising from the translation of the foreign currency financial statements of foreign subsidiaries.

Effective portion of changes in fair value of cash flow hedges This is the effective portion of changes in the fair value of derivative transactions designated as cash flow hedges.

Changes in fair value measurements of available-for-sale financial assets

This is a valuation difference between the fair value and acquisition cost of available-for-sale financial assets, which are measured at fair value.

Stock options

The Company has stock option plans and issues stock options under the Law. For details on the conditions and amounts, please refer to Note 23 "Share-based Payment."

22. Dividends

Fiscal year 2017

(1st January, 2017 through 31st December, 2017)

(1) Dividends paid

| Resolution | Class of shares | Total dividends (Millions of yen) (Thousands of U.S. dollars) | Dividends per share (Yen) (U.S. dollars) | Record date | Effective date |
|----------------------------------|--------------------|--|---|-------------------|--------------------|
| Annual general meeting of | Ordinary | ¥ 1,560 | ¥ 13 | 31st December, | 23rd March, |
| held on 22th March, 2017 | snares | \$13,805 | \$0.12 | 2016 | 2017 |
| Board of Directors meeting | Ordinary | ¥ 1,844 | ¥ 15 | 30th June, | 15th September, |
| August, 2017 | snares | \$16,319 | \$0.13 | 2017 | 2017 |

(Note) The difference between total dividends above and cash dividends presented in the consolidated statement of changes in equity is due to inter-company eliminations.

(2) Dividends whose record date is in the year ended 31st December, 2017 but whose effective date is in the following fiscal year are as follows:

| Resolution | Class of shares | Total dividends (Millions of yen) (Thousands of U.S. dollars) | Dividends per share (Yen) (U.S. dollars) | Record date | Effective date |
|---|--------------------|--|---|------------------|-------------------|
| Annual general meeting of | Ordinary | ¥ 3,022 | ¥ 25 | 31st December | 23rd March |
| shareholders held on 22nd March, 2018 | shares | \$26,743 | \$0.22 | 2017 | 2018 |

23. Share-based Payment

(1) Description of stock options

The Company grants stock options to its corporate officers and certain of its and its subsidiaries employees, in order to raise their motivation for enhancing the corporate value of the Company and secure talented personnel.

The outline of stock option plan is as follows:

| lssuer | The Company (DMG MORI CO., LTD.) | |
|--|--|----------------------|
| Date of resolution at the Board of Directors Meeting | 13th September, 2016 | |
| Grantees | Corporate officers of the Company Employees of the Company Executive officers of the Company's subsidiaries Employees of the Company's subsidiaries | 20 75 15 49 |
| Class and number of granted shares | Common stock, 2,410,000 shares | |
| Grant date | 30th September, 2016 | |
| Vesting Conditions | Continuous service with the Company or its subsidiaries in the state of being employed or entrusted from the grant date (30th September, 2016) to the vesting date (13th September, 2018) | |
| Service period | From 30th September, 2016 to 13th September, 2018 | |
| Exercisable period | From 14th September, 2018 to 13th September, 2021 | |

(2) Expenses recorded in consolidated statement of profit or loss

| | Million | Thousands of U.S. dollars | |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Total expenses recorded from granting stock options | ¥328 | ¥83 | \$2,903 |
| Total | ¥328 | ¥83 | \$2,903 |

(3) Changes in the number of shares for outstanding stock options (100 shares per 1 option)

| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) |
|---|--|--|
| Beginning balance | 2,410,000 | - |
| Granted | - | 2,410,000 |
| Expired | (105,000) | - |
| Exercised | - | - |
| Exercisable outstanding balance at the reporting date | 2,305,000 | 2,410,000 |

(4) Measurement approach for fair value of stock options

The fair value of stock options has been estimated using the Black-Scholes model. The fair value and assumptions used in the calculation are as follows.

| Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) |
|--|--|
| - | 27,700 |
| - | 1,042 |
| - | 1,090 |
| - | 47.724 |
| - | 3.46 |
| - | 2.495 |
| - | (0.267) |
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) – – – – – – – – |

| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
|--|--|
| Issue price per options (U.S. dollars) | - |
| Share price at the grant date (U.S. dollars) | - |
| Exercise price of the option (U.S. dollars) | - |

The exercise price shall be the amount that is equal to the average of the daily closing prices (excluding days on which no transactions are established) of common stock of the Company in regular transactions at the Tokyo Securities Exchange during the calendar month immediately prior to the month in which the grant date of the stock acquisition rights belongs, multiplied by 1.05, and any fraction less than one yen resulting therefrom shall be rounded down; provided, however, that in the event that this amount is less than the closing price of common stock of the Company in regular transactions at the Tokyo Securities Exchange as of the grant date (the closing price on the day immediately preceding the grant date if no transactions are established on the grant date), the relevant closing price shall be the exercise price.

The expected volatility of the share price is calculated based on past weekly share prices corresponding to the remaining life of the option.

The Company sold its treasury stocks of common stock below the market price whose due date for payment was 31st March, 2017. Thus, the Company adjusted exercise price of the option from ¥1,121 to ¥1,090 for the options granted on 30th September, 2016.

24. Financial Instruments

(1) Capital management

The Group's capital management policy is to maintain an optimal capital structure in order to achieve sustained improvement in the enterprise value for further growth in global machine tool markets. The Group monitors financial indicators, such as ROE (return on equity), EPS (earnings per share) and the equity ratio, in order to maintain an optimal capital structure. The Group is not subject to any material capital regulation.

The Group raises necessary capital partly by issuing new shares and bonds, borrowings from banks and liquidation of receivables for mainly operations related to the manufacturing and sales of machine tools based on the demand for funds from its operating activities.

(2) Risk management policy

The Group is exposed to financial risk, credit risk, liquidity risk, foreign exchange risk, interest rate risk and market volatility risk in operating its business and manages these risks based on its policy to mitigate them.

The Group manages surplus funds by investing only in shortterm deposits and others and does not enter into speculative transactions. The purpose of derivative transactions is, in principle, to hedge the risks as described herein, and transactions are not carried out for speculative purposes.

(3) Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss.

Cash and cash equivalents are held only with banks and financial institutions with high credit ratings, therefore, the corresponding credit risk is very limited.

Trade and other receivables are exposed to the credit risk of customers. The Group regularly monitors the credit information related to customer operating claims and manages collection dates and outstanding balances in accordance with its credit control policy.

Derivative transactions included in other financial assets and liabilities are exposed to credit risks associated with the banks and financial institutions with which the Group has a business relationship. To minimize the counterparty risk when entering into derivative transactions, counterparties are limited to financial institutions with high credit ratings.

The Group has granted certain financial guarantees and these are exposed to the credit risk of those entities for which the guarantees were granted.

Other than guarantee obligations, the Group's maximum exposures to credit risk, without taking into account any collateral held or other credit enhancements, is the carrying amount of the financial instruments less impairment losses in the consolidated statement of financial position and the amount of guarantee obligations as disclosed in Note 37, "Contingent Liabilities." An aging analysis of trade and other receivables that are past due but not impaired is as follows:

| | Million | Thousands of U.S. dollars | |
|----------------------------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Within three months past due | ¥5,080 | ¥5,862 | \$44,956 |
| Within six months past due | 856 | 805 | 7,575 |
| Within twelve months past due | 710 | 1,059 | 6,283 |
| Over one year past due | 584 | 552 | 5,168 |
| Total | ¥7.231 | ¥8.280 | \$63.991 |

(Note) The amounts in the above table are before any allowance for doubtful receivables.

The movement in the allowance for doubtful receivables is as follows:

| | Million | Thousands of U.S. dollars | |
|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Beginning balance | ¥2,220 | ¥2,126 | \$19,646 |
| Increase | 628 | 671 | 5,558 |
| Decrease due to intended use | (423) | (192) | (3,743) |
| Increase due to business combinations | (8) | - | (71) |
| Other | (178) | (385) | (1,575) |
| Ending balance | ¥2,238 | ¥2,220 | \$19,805 |

(Note) These balances at 31st December, 2017 and 2016 in the table above include impairment losses on trade and other receivables in consideration of the creditworthiness of customers and the status of the overdue balances.

(4) Liquidity risk

The Group is exposed to liquidity risk that it might have difficulty settling its financial obligations.

Trade and other payables, bonds and borrowings and other financial liabilities are exposed to liquidity risk. However, the Group manages liquidity risk by maintaining liquidity on hand and credit lines from financial institutions that enable the Group to meet its obligations based on funding plans that are updated in a timely manner.

Financial liabilities by maturity date are as follows:

The contractual cash flows in the table are based on the undiscounted cash flows, reflecting interest payments.

As of 31st December, 2017

| | Millions of yen | | | | |
|--|-----------------|---------------------------|-----------------|------------------------------------|-----------------|
| | Carrying amount | Contractual cash flows | Within one year | Over one year within five years | Over five years |
| Non-derivative financial liabilities: | | | · | | |
| Trade and other payables | ¥ 47,717 | ¥ 47,717 | ¥47,717 | ¥ – | ¥ – |
| Bonds and borrowings | 179,359 | 181,952 | 33,604 | 148,348 | - |
| Other financial liabilities (Payment obligation for non-controlling interests) | 101,691 | 105,510 | 2,973 | 102,536 | - |
| Other financial liabilities (Preferred stocks) | 14,838 | 15,000 | - | 15,000 | - |
| Other financial liabilities | 5,766 | 6,953 | 941 | 3,894 | 2,117 |
| Derivative financial liabilities: | | | | | |
| Other financial liabilities | 2,469 | 2,469 | 186 | 2,283 | - |
| Total | ¥351,842 | ¥359,602 | ¥85,435 | ¥272,049 | ¥2,117 |

| | Thousands of U.S. dollars | | | | |
|--|---------------------------|---------------------------|-----------------|---------------------------------|-----------------|
| | Carrying amount | Contractual cash flows | Within one year | Over one year within five years | Over five years |
| Non-derivative financial liabilities: | | | | | |
| Trade and other payables | \$ 422,274 | \$ 422,274 | \$422,274 | \$ - | \$ - |
| Bonds and borrowings | 1,587,248 | 1,610,195 | 297,381 | 1,312,814 | - |
| Other financial liabilities (Payment obligation for non-controlling interests) | 899,920 | 933,717 | 26,310 | 907,398 | - |
| Other financial liabilities (Preferred stocks) | 131,310 | 132,743 | - | 132,743 | - |
| Other financial liabilities | 51,027 | 61,531 | 8,327 | 34,460 | 18,735 |
| Derivative financial liabilities: | | | | | |
| Other financial liabilities | 21,850 | 21,850 | 1,646 | 20,204 | - |
| Total | \$3,113,646 | \$3,182,319 | \$756,062 | \$2,407,513 | \$18,735 |

As of 31st December, 2016

| | Millions of yen | | | | |
|--|-----------------|---------------------------|-----------------|------------------------------------|-----------------|
| | Carrying amount | Contractual cash flows | Within one year | Over one year within five years | Over five years |
| Non-derivative financial liabilities: | | | | | |
| Trade and other payables | ¥ 55,861 | ¥ 55,861 | ¥ 55,861 | ¥ – | ¥ – |
| Bonds and borrowings | 206,780 | 210,172 | 46,995 | 132,836 | 30,340 |
| Other financial liabilities (Payment obligation for non-controlling interests) | 92,802 | 98,280 | 2,702 | 95,577 | - |
| Other financial liabilities (Preferred stocks interests) | - | - | - | - | - |
| Other financial liabilities | 5,569 | 6,951 | 1,160 | 3,295 | 2,495 |
| Derivative financial liabilities: | | | | | |
| Other financial liabilities | 11,249 | 11,249 | 11,249 | - | - |
| Total | ¥372,262 | ¥382,514 | ¥117,969 | ¥231,709 | ¥32,836 |

Borrowing commitments and other credit lines

For effective financing purposes, the Group concluded lineof-credit agreements with several banks and financial institutions. The status of such agreements is summarized as follows:

| | Million | Thousands of U.S. dollars | |
|----------------|------------------------|------------------------------|------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Credit line | ¥282,132 | ¥266,199 | \$2,496,743 |
| Borrowings | 12,494 | 7,646 | 110,566 |
| Unused balance | ¥269,637 | ¥258,552 | \$2,386,168 |

(5) Foreign exchange risk

The Group operates globally and its business transactions denominated in foreign currencies other than the functional currencies of each group entity are exposed to foreign exchange risks. The underlying currencies of these transactions are mainly the Japanese yen, the U.S. dollar and the Euro.

Trade receivables denominated in foreign currencies are exposed to foreign exchange risk, which is, in principle, hedged using foreign exchange forward contracts, limited to the necessary amounts, in order to mitigate the risk of fluctuations of foreign currencies identified by each currency. Trade payables denominated in foreign currencies, mainly related to the import of raw materials, are also exposed to foreign exchange risk.

The analysis of exposures to foreign exchange risk of the Group is as follows:

As of 31st December, 2017

| | | Millions of yen | | | | |
|-------------------------|--|-----------------|------------------------|--|--|--|
| | Japanese yen | U.S. dollars | Euro | | | |
| Net exposures | ¥(1,303) | ¥ 24,357 | ¥ (8,439) | | | |
| Per each local currency | \$215,556 €(62,515 thousand thousan | | € (62,515) thousand | | | |
| | | | | | | |
| | Thousands of U.S. dollars | | | | | |
| | Japanese yen U.S. dollars E | | Euro | | | |
| Net exposures | \$(11,531) | \$215,549 | \$ (74,681) | | | |

As of 31st December, 2016

| | | Millions of yen | | |
|---------------|--------------|-----------------|---------|--|
| | Japanese yen | U.S. dollars | Euro | |
| Net exposures | ¥(1,292) | ¥892 | ¥28,122 | |

Foreign currency sensitivity analysis

The financial impact on earnings before income taxes for the year ended 31st December, 2017 and 2016 in the case of a 1% increase in the Japanese yen, which is the Company's functional currency, against the U.S. dollar and Euro is as follows:

It is based on the assumption that all parameters other than the currencies used for the calculation do not fluctuate. In addition, these amounts are based on the effect of translation. The effects of forecasted sales and purchases are not taken into account.

| | Million | s of yen | Thousands of U.S. dollars |
|-------------------------------------|--|--|--|
| Japanese yen U.S. dollar Euro | Fiscal year 2017 [1st January, 2017 through 31st December, 2017] | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Japanese yen | ¥ 13 | ¥ 12 | \$ 115 |
| U.S. dollar | (243) | (8) | (2,150) |
| Euro | 84 | (281) | 743 |

(Note) The impact on profit or loss due to the fluctuation of the Japanese yen in the above table is related to financial assets or financial liabilities denominated in Japanese yen of foreign subsidiaries.

(6) Interest rate risk

Non-current floating rate borrowings in the Group are exposed to interest rate risk. In order to manage the exposure and hedge interest rate risk, the Group enters into interest rate swaps in which the Group agrees to exchange interest payments at specified intervals.

Interest rate sensitivity analysis

The financial impact on earnings before income taxes for the year ended 31st December, 2017 and 2016 in the case of a 1% increase in interest rates is as follows:

It is based on the assumption that all parameters other than the interest rates used for the calculation do not fluctuate. In addition, the table below represents the sensitivity analyses to the balance of floating rate borrowings, excluding the portion of borrowings whose interest payments are substantially fixed through a corresponding interest rate swap.

| | Million | s of yen | Thousands of U.S. dollars |
|-----------------------------|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Loss before income taxes | ¥(703) | ¥(682) | \$(6,221) |

(7) Market volatility risk

The Group holds equity instruments, which are mainly shares of companies with which the Group has a business relationship, and these equity instruments are exposed to market volatility risk. The Group continually assesses the market situation by periodically reviewing share prices and the financial position of the issuers.

Market volatility sensitivity analysis

The financial impact on other comprehensive income (net of tax) for the year ended 31st December, 2017 and 2016 in the case of a 10% decrease in listed share prices is as follows: It is based on the assumption that all parameters other than the share prices used for the calculation do not fluctuate.

| | Million | Millions of yen | | | | |
|-----------------------------|--|--|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 [1st January, 2016 through 31st December, 2016] | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | | | |
| Other comprehensive loss | ¥(470) | ¥(831) | \$(4,159) | | | |

(8) Fair value of financial instruments

Carrying amounts and fair value of financial instruments are as follows:

| - | | Millions | of yen | | Thousands of U.S. dollars | | |
|--|---------------------|------------|---------------------|------------|---------------------------|-------------|--|
| - | 31st Decen | nber, 2017 | 31st Decen | nber, 2016 | 31st Decer | nber, 2017 | |
| | Carrying amounts | Fair value | Carrying amounts | Fair value | Carrying amounts | Fair value | |
| Financial assets measured at amortized cost: | | | | | | | |
| Cash and cash equivalents | ¥ 64,973 | ¥ 64,973 | ¥ 67,750 | ¥ 67,750 | \$ 574,982 | \$ 574,982 | |
| Trade and other receivables | 60,741 | 60,741 | 51,008 | 51,008 | 537,531 | 537,531 | |
| Other financial assets including loans | 10,474 | 10,474 | 8,266 | 8,266 | 92,690 | 92,690 | |
| Financial assets measured at fair value through profit or loss included in other financial assets: | | | | | | | |
| Derivative assets | 95 | 95 | 1,912 | 1,912 | 841 | 841 | |
| Available-for-sale financial assets | 7,079 | 7,079 | 11,360 | 11,360 | 62,646 | 62,646 | |
| Total | ¥143,364 | ¥143,364 | ¥140,298 | ¥140,298 | \$1,268,708 | \$1,268,708 | |
| Financial liabilities measured at amortized cost: | | | | | | | |
| Trade and other payables | ¥ 47,717 | ¥ 47,717 | ¥ 55,861 | ¥ 55,861 | \$ 422,274 | \$ 422,274 | |
| Interest-bearing bonds and borrowings | 179,359 | 179,456 | 206,780 | 206,996 | 1,587,248 | 1,588,106 | |
| Other financial liabilities (Payment obligation for non-controlling interests) | 101,691 | 101,186 | 92,802 | 92,802 | 899,920 | 895,451 | |
| Other financial liabilities (Preferred stocks) | 14,838 | 14,838 | - | - | 131,310 | 131,310 | |
| Other financial liabilities | 5,766 | 5,766 | 5,569 | 5,569 | 51,027 | 51,027 | |
| Financial liabilities measured at fair value through profit or loss included in other financial liabilities: | | | | | | | |
| Derivative liabilities | 2,469 | 2,469 | 11,249 | 11,249 | 21,850 | 21,850 | |
| Total | ¥351,842 | ¥351,434 | ¥372,262 | ¥372,478 | \$3,113,646 | \$3,110,035 | |

Methods to determine the fair value of financial assets and liabilities measured at amortized cost are summarized as follows:

Cash and cash equivalents

The carrying amount approximates the fair value due to the short maturities of the instruments.

Trade and other receivables

The carrying amount approximates the fair value due to the short maturities of the instruments.

Other financial assets including loans

The fair value of the non-current loans and other financial assets including loans is calculated based on the present value of total amount of principal and interest discounted by the expected interest rate based on the maturity term and credit risk considering years to maturity. On the other hand, the carrying amount of the current portion approximates the fair value due to the short maturities of the instruments.

Trade and other payables

The carrying amount approximates the fair value due to the short maturities of the instruments.

Interest-bearing bonds and borrowings

The fair value of interest-bearing bonds is determined based on the market price at the end of the reporting period.

The fair value of non-current borrowings with fixed interest rates is calculated based on the present value of total amount of principal and interest discounted by the expected interest rate based on the maturity term and credit risks considering years to maturity. On the other hand, the carrying amount of the current portion approximates the fair value due to the short maturities of the instruments.

Other financial liabilities

The fair value of the payment obligations for non-controlling interests (the liabilities arising from the entry into force of the DPLTA) is calculated based on the present value of total amount of estimated future payments to the non-controlling interests discounted by the expected interest rate based on the payment period and credit risk considering years to payments.

Under IFRS, a certain type of preferred stock is treated as financial liabilities because the Group has an obligation to deliver cash to holders of preferred stock. The fair value of the preferred stock is calculated by the present value of future cash flows discounted using the interest rate adjusted for the remaining maturity period and credit risk.

The fair value of other financial liabilities is calculated based on the present value of total amount of principal and interest discounted by the expected interest rate based on the maturity term and credit risks considering years to maturity. Financial assets and liabilities measured at fair value through profit or loss included in other financial assets and liabilities.

Derivative assets and liabilities

The fair value of foreign exchange forward contracts included in derivative assets and liabilities is determined based on respective market price at the end of the reporting period. The fair value of interest rate swaps is calculated based on the present value of estimated future cash flows discounted by the expected interest rate based on the maturity term and applicable swap rates at the end of the reporting period.

Available-for-sale financial assets

The fair value of listed securities included in available-for sale financial assets is based on the market price, and when no market price exists for non-listed securities, a rationally calculated amount principally measured based on net assets value is used. In addition, the fair value of the debt securities included in available-for-sale financial assets is measured based on prices provided by counterparty financial institutions.

The levels of the fair value hierarchy are as follows:

Fair value of financial instruments is categorized within the fair value hierarchy described as follows from Level 1 to Level 3. Any significant transfers of the financial instruments between levels are recognized at the date of events that causes the transfers or changes on the status.

- Level 1 Fair value measured using quoted prices (unadjusted) in active markets for identical assets or liabilities
- Level 2 Fair value measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability either directly or indirectly
- Level 3 Fair value measured using unobservable inputs for the asset or liability

Financial instruments measured at amortized cost

The carrying amount and the respective level in the fair value hierarchy of financial instruments measured at amortized cost at the end of the reporting period are as follows:

As of 31st December, 2017

| | | Millions of yen | | | | | | | | | |
|---|----------|-----------------|---------|------------|----------|--|--|--|--|--|--|
| | Carrying | | Fair | Fair value | | | | | | | |
| | amounts | Level 1 | Level 2 | Level 3 | Total | | | | | | |
| Interest-bearing non-current borrowings | ¥143,851 | ¥- | ¥ - | ¥143,935 | ¥143,935 | | | | | | |
| Interest-bearing bonds | 29,918 | - | 29,931 | - | 29,931 | | | | | | |
| Other financial liabilities (Payment obligation for non-controlling interests) | 101,691 | - | - | 101,186 | 101,186 | | | | | | |
| Other financial liabilities (Preferred stock) | 14,838 | - | - | 14,838 | 14,838 | | | | | | |

[Note] The balance of interest-bearing non-current borrowings and interest-bearing bonds includes those due within one year.

| | Thousands of U.S. dollars | | | | | | | | |
|---|---------------------------|------------|---------|-------------|-------------|--|--|--|--|
| | Carrying | Fair value | | | | | | | |
| | amounts | Level 1 | Level 2 | Level 3 | Total | | | | |
| Interest- bearing non-current borrowings | \$1,273,018 | \$- | \$ - | \$1,273,761 | \$1,273,761 | | | | |
| Interest-bearing bonds | 264,761 | - | 264,876 | - | 264,876 | | | | |
| Other financial liabilities (Payment obligation for non-controlling interests) | 899,920 | - | - | 895,451 | 895,451 | | | | |
| Other financial liabilities (Preferred stock) | 131,310 | - | - | 131,310 | 131,310 | | | | |

(Note) The balance of interest-bearing non-current borrowings and interest-bearing bonds includes those due within one year.

As of 31st December, 2016

| | Millions of yen | | | | | | | | | |
|---|-----------------|---------|------------|----------|----------|--|--|--|--|--|
| | Carrying | | Fair value | | | | | | | |
| | amounts | Level 1 | Level 2 | Level 3 | Total | | | | | |
| Interest- bearing non-current borrowings | ¥154,473 | ¥– | ¥ – | ¥154,612 | ¥154,612 | | | | | |
| Interest-bearing bonds | 49,863 | - | 49,940 | - | 49,940 | | | | | |
| Other financial liabilities (Payment obligation for non-controlling interests) | 92,802 | - | _ | 92,802 | 92,802 | | | | | |

[Note] The balance of interest-bearing non-current borrowings and interest-bearing bonds includes those due within one year. The carrying amount of financial instruments measured at amortized cost, except for non-current borrowings and bonds, approximates the fair value. The fair value of noncurrent borrowings with fixed interest rates is calculated based on the present value of the total amount of principal and interest discounted by the expected interest rate for a similar new borrowing.

Financial instruments measured at fair value

The carrying amount and the respective level in the fair value hierarchy of financial instruments measured at fair value at the end of reporting period are as follows:

As of 31st December, 2017

| | Millions of yen | | | | | | | | | |
|--|-----------------|---------|----|---------|------|---|-------|-----|--|--|
| | Leve | Level 1 | | Level 2 | | 3 | Total | | | |
| Other financial assets: | | | | | | | | | | |
| Derivative assets | ¥ | - | ¥ | 95 | ¥ | - | ¥ | 95 | | |
| Available-for-sale financial assets | 6,141 | | - | | 937 | | 7,079 | | | |
| Total | ¥6, | 141 | ¥ | 95 | ¥937 | | ¥7, | 174 | | |
| Other financial liabilities: | | | | | | | | | | |
| Derivative liabilities | ¥ | - | ¥2 | ,469 | ¥ | - | ¥2, | 469 | | |
| Total | ¥ | - | ¥2 | ,469 | ¥ | - | ¥2, | 469 | | |

[Note] There have been no significant transfers between Levels 1, 2, and 3 of the fair value measurement hierarchy during the fiscal year.

| | Thousands of U.S. dollars | | | | | | | | | |
|--|---------------------------|--------|-----|-------|---------|-----|----------|-------|--|--|
| | Leve | el 1 | Lev | vel 2 | Level 3 | | Total | | | |
| Other financial assets: | | | | | | | | | | |
| Derivative assets | \$ | - | \$ | 841 | \$ | - | \$ | 841 | | |
| Available-for-sale financial assets | 54 | 54,345 | | - | 8, | 292 | 6 | 2,646 | | |
| Total | \$54 | ,345 | \$ | 841 | \$8,292 | | \$63,487 | | | |
| Other financial liabilities: | | | | | | | | | | |
| Derivative liabilities | \$ - | | \$2 | 1,850 | \$ | - | \$2 | 1,850 | | |
| Total | \$ | \$ - | | 1,850 | \$ | - | \$2 | 1,850 | | |

(Note) There have been no significant transfers between Levels 1, 2, and 3 of the fair value measurement hierarchy during the fiscal year.

As of 31st December, 2016

| | Millions of yen | | | | | | | | | |
|--|-----------------|------|---------|---------|---------|--|--|--|--|--|
| | Level 1 | | Level 2 | Level 3 | Total | | | | | |
| Other financial assets: | | | | | | | | | | |
| Derivative assets | ¥ | - | ¥ 1,912 | ¥ – | ¥ 1,912 | | | | | |
| Available-for-sale financial assets | 10,990 | | - | 369 | 11,360 | | | | | |
| Total | ¥10 | ,990 | ¥ 1,912 | ¥369 | ¥13,272 | | | | | |
| Other financial liabilities: | | | | | | | | | | |
| Derivative liabilities | ¥ | - | ¥11,249 | ¥ – | ¥11,249 | | | | | |
| Total | ¥ | - | ¥11,249 | ¥ – | ¥11,249 | | | | | |
| | | | | | | | | | | |

(Note) There have been no significant transfers between Levels 1, 2 and 3 of the fair value measurement hierarchy during the fiscal year.

The financial assets and financial liabilities categorized in Level 2 are mainly derivative transactions related to foreign exchange forward contracts and interest rate and currency swaps. The fair values of foreign exchange forward contracts and interest rate and currency swaps are measured based on observable market data, such as interest rates mainly provided by counterparty financial institutions.

The fair value of non-listed shares is measured using the respective net asset values and is categorized within Level 3 because unobservable inputs such as estimates of future net operating profit after tax and the weighted average cost of capital are used for the measurement.

The movement in fair value of financial instruments categorized within Level 3 of the fair value hierarchy is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|---|---|----------|--|
| | Fiscal year 2017 Fiscal year 2016 [1st January, 2017] [1st January, 2016] through through 31st December, 2017] 31st December, 2016] | | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Beginning balance | ¥369 | ¥344 | \$3,265 |
| Total gain and loss: | | | |
| Profit or loss (Note 1) | (58) | 529 | (513) |
| Other comprehensive income (loss) (Note 2) | 14 | 6 | 124 |
| Purchase | 695 | 137 | 6,150 |
| Sales | - | (500) | - |
| Other | (83) | (149) | (735) |
| Ending balance | ¥937 | ¥369 | \$8,292 |
| Changes of unrealized gain which is recognized as profit or loss on financial instruments held at the end of reporting period (Note 1) | ¥(58) | ¥29 | \$ (513) |

[Note 1] Gain and loss included in profit or loss are included in other operating revenues and other operating costs in the consolidated statement of profit or loss.

(Note 2) Gain and loss included in other comprehensive income (loss) are related to unquoted shares, which are not traded in any market at the reporting date. These are included in changes in fair value measurements of available-for-sale financial assets in the consolidated statement of comprehensive income.

(9) Derivative and hedge accounting

The Group uses foreign exchange forward contracts to hedge the risk of future fluctuations in cash flow in regard to foreign currency transactions and a cash flow hedge is designated if the transaction meets the qualifying conditions.

If a cash flow hedge meets the qualifying conditions, the portion of the gain or loss on a hedging instrument that is determined to be an effective hedge should be recognized in other comprehensive income and the ineffective portion should be recognized immediately in profit or loss.

Also, the Group uses cross currency swap transactions to hedge the risk of fluctuations in exchange rates in regard to interestbearing borrowings denominated in foreign currencies and uses interest rate swap transactions to hedge the risk of fluctuations in interest rates in regard to these borrowings.

The fair value of derivatives is as follows:

Derivative transactions which do not qualify for hedge accounting

| | | | T | housands of U.S. dolla | rs | | | | | | |
|---------------------------------------|---------------------|---------------|------------|------------------------|---------------|------------|--------------------|---------------------|------------|--|--|
| | 31st December, 2017 | | | 31st December, 2016 | | | | 31st December, 2017 | | | |
| | Contract amount | Over one year | Fair value | Contract amount | Over one year | Fair value | Contract amount | Over one year | Fair value | | |
| Foreign exchange forward contracts | ¥23,318 | ¥- | ¥(59) | ¥124,263 | ¥93 | ¥(10,511) | \$206,354 | \$- | \$(522) | | |
| Cross currency interest rate swaps | - | - | - | - | - | - | - | - | - | | |
| Total | ¥23,318 | ¥- | ¥(59) | ¥124,263 | ¥93 | ¥(10,511) | \$206,354 | \$- | \$(522) | | |

Derivative transactions which qualify for hedge accounting

| | Millions of yen | | | | | | TI | housands of U.S. dolla | IFS |
|---------------------------------------|---------------------|---------------|------------|---------------------|---------------|------------|---------------------|------------------------|------------|
| | 31st December, 2017 | | | 31st December, 2016 | | | 31st December, 2017 | | |
| | Contract amount | Over one year | Fair value | Contract amount | Over one year | Fair value | Contract amount | Over one year | Fair value |
| Foreign exchange forward contracts | ¥ 3,465 | ¥ – | ¥ (31) | ¥ 7,417 | ¥ — | ¥ (86) | \$ 30,664 | \$ - | \$ (274) |
| Cross currency interest rate swaps | 30,103 | 30,103 | (2,283) | 41,377 | 41,377 | 1,261 | 266,398 | 266,398 | (20,204) |
| Total | ¥33,569 | ¥30,103 | ¥(2,314) | ¥48,794 | ¥41,377 | ¥1,175 | \$297,071 | \$266,398 | \$(20,478) |

(10) Reconciliation of liabilities arising from financing activities

Reconciliation of liabilities arising from financing activities is as follows:

Fiscal year 2017 (1st January, 2017 through 31st December, 2017)

| | | | | Millions of yen | | | | | |
|---|----------------------|------------------------------|------------------------------|------------------------------------|-----------------------------|--|----------------|--|--|
| | | Coch flows | Coch flows | | Non-cash changes | | | | |
| | Beginning balance | from financing activities | from operating activities | Foreign exchange differences | Measuring at amortized cost | Appropriation of retained earnings | Ending balance | | |
| Current borrowings | ¥ 2,444 | ¥ 17 | ¥ – | ¥ 3,128 | ¥ - | ¥ – | ¥ 5,590 | | |
| Non-current borrowings | 154,473 | (22,117) | - | 11,171 | 324 | - | 143,851 | | |
| Interest-bearing bonds | 49,863 | (20,000) | - | - | 54 | - | 29,918 | | |
| Dividends payable | 25 | (3,461) | - | - | - | 3,462 | 27 | | |
| Payment obligation for non-controlling interests | 92,802 | (11) | (2,406) | 9,235 | 2,071 | - | 101,691 | | |
| Preferred stock | - | 14,838 | - | - | - | - | 14,838 | | |
| Finance lease obligations | 5,569 | (462) | - | (525) | - | - | 4,580 | | |
| Total | ¥305,177 | ¥(31,198) | ¥(2,406) | ¥23,010 | ¥2,450 | ¥3,462 | ¥300,496 | | |

| | | | | | T | housands of U.S dolla | rs | | | | | |
|---|----------------------|-----------------|-------------------|---------------------|---------------|------------------------------------|-----------------------|-----------------|-------------------------------|----------------------|-------|------------|
| | | 0 1 1 | | O a chaffarana | | Non-cash changes | | | | | | |
| | Beginning balance | from fi acti | nancing vities | from ope activit | rating ies | Foreign exchange differences | Measurii amortized | ng at I cost | Appropr of retai earnir | iation ned ngs | Endir | ng balance |
| Current borrowings | \$ 21,628 | \$ | 150 | \$ | - | \$ 27,681 | \$ | - | \$ | - | \$ | 49,469 |
| Non-current borrowings | 1,367,018 | (19 | 95,726) | | - | 98,858 | 2, | 867 | | - | 1, | 273,018 |
| Interest-bearing bonds | 441,265 | (17 | 76,991) | | - | - | | 478 | | - | | 264,761 |
| Dividends payable | 221 | (3 | 30,628) | | - | - | | - | 30 | ,637 | | 239 |
| Payment obligation for non-controlling interests | 821,257 | | (97) | (21 | ,292) | 81,726 | 18, | 327 | | - | | 899,920 |
| Preferred stock | - | 13 | 31,310 | | - | - | | - | | - | | 131,310 |
| Finance lease obligations | 49,283 | 1 | (4,088) | | - | (4,646) | | - | | - | | 40,531 |
| Total | \$2,700,681 | \$(27 | 76,088) | \$(21 | ,292) | \$203,628 | \$21, | 681 | \$30 | ,637 | \$2, | 659,257 |

25. Sales Revenues

The breakdown of sales revenues is as follows:

| | Million | Thousands of U.S. dollars | |
|-------------------|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Sales of products | ¥312,073 | ¥267,873 | \$2,761,708 |
| Service revenue | 117,556 | 108,731 | 1,040,319 |
| Other | 34 | 26 | 301 |
| Total | ¥429,664 | ¥376,631 | \$3,802,336 |
| | | | |

26. Other Operating Revenues

The breakdown of other operating revenues is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Gain on sales of property, plant and equipment | ¥ 459 | ¥ 245 | \$ 4,062 |
| Gain on sales of financial instruments | 5,536 | 3,830 | 48,991 |
| Other | 6,032 | 5,100 | 53,381 |
| Total | ¥12,028 | ¥9,175 | \$106,442 |

27. Other Operating Costs

The breakdown of other operating costs is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Commissions | ¥18,575 | ¥19,713 | \$164,381 |
| Sales promotion costs | 7,756 | 9,107 | 68,637 |
| Outward freight and packaging | 14,465 | 13,415 | 128,009 |
| Research and development costs (except for amortization of capitalized development costs) | 9,151 | 7,098 | 80,982 |
| Exchange losses | 594 | 834 | 5,257 |
| Other | 28,107 | 30,595 | 248,735 |
| Total | ¥78,650 | ¥80,765 | \$696,018 |

28. Personnel Costs

The breakdown of personnel costs is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Remuneration and salaries | ¥ 82,157 | ¥ 77,881 | \$ 727,053 |
| Bonuses | 14,300 | 13,361 | 126,549 |
| Social security and welfare expenses | 17,379 | 16,522 | 153,796 |
| Retirement benefit expenses | 3,111 | 2,965 | 27,531 |
| Share-based compensation expenses | 328 | 83 | 2,903 |
| Other employee benefit expenses | 3,450 | 3,307 | 30,531 |
| Total | ¥120,728 | ¥114,121 | \$1,068,389 |
| | | | |

29. Financial Income

The breakdown of financial income is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|---|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Financial income | | | |
| Interest income: | | | |
| Financial assets measured at amortized cost | ¥393 | ¥371 | \$3,478 |
| Dividend income: | | | |
| Available-for-sale financial assets | 254 | 340 | 2,248 |
| Total | ¥647 | ¥711 | \$5,726 |

30. Financial Costs

The breakdown of financial costs is as follows:

| | Million | s of yen | Thousands of U.S. dollars |
|--|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Financial costs | | | |
| Interest expenses on bonds and borrowings: | | | |
| Financial liabilities measured at amortized cost | ¥3,014 | ¥3,234 | \$26,673 |
| Financial costs arising from domination and profit and loss transfer agreement: | | | |
| Financial liabilities measured at amortized cost | 2,071 | 700 | 18,327 |
| Others | 211 | - | 1,867 |
| Total | ¥5,297 | ¥3,935 | \$46,876 |

31. Other Comprehensive Income

The breakdown of each component of other comprehensive (loss) income and the corresponding tax effects (including noncontrolling interests) is as follows:

| | | | Million | s of yen | | | Thousands of U.S. dollars | | |
|---|--|------------|---------------------|--|------------|---------------------|---------------------------|--|------------------------------|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | | | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | | | Fi (1st Ja 31st | scal year 20 1 nuary, 2017 tl December, 2 | 1 7 hrough 017) |
| | Before tax effect | Tax effect | After tax effect | Before tax effect | Tax effect | After tax effect | Before tax effect | Tax effect | After tax effect |
| Items that will not be reclassified subsequently to profit or loss: | | | | | | | | | |
| Remeasurements of defined benefit plans: | | | | | | | | | |
| Amount arising during the year | ¥ (201) | ¥ 71 | ¥ (129) | ¥ (390) | ¥ 269 | ¥ (120) | \$ (1,779) | \$ 628 | \$ (1,142) |
| Net changes during the year | (201) | 71 | (129) | (390) | 269 | (120) | (1,779) | 628 | (1,142) |
| Subtotal | (201) | 71 | (129) | (390) | 269 | (120) | (1,779) | 628 | (1,142) |
| Items that may be reclassified subsequently to profit or loss: | | | | | | | | | |
| Exchange differences on translation of foreign operations: | | | | | | | | | |
| Amount arising during the year | 4,044 | - | 4,044 | (20,099) | - | (20,099) | 35,788 | - | 35,788 |
| Reclassification adjustments to profit or loss | - | - | - | - | - | - | - | - | - |
| Net change during the year | 4,044 | - | 4,044 | (20,099) | - | (20,099) | 35,788 | - | 35,788 |
| Effective portion of changes in fair value of cash flow hedges: | | | | | | | | | |
| Amount arising during the year | (291) | 93 | (198) | (232) | 74 | (157) | (2,575) | 823 | (1,752) |
| Reclassification adjustments to profit or loss | 246 | (78) | 167 | 132 | (42) | 89 | 2,177 | (690) | 1,478 |
| Net change during the year | (45) | 14 | (31) | (100) | 32 | (67) | (398) | 124 | (274) |
| Changes in fair value measurements of available-for-sale financial assets: | | | | | | | | | |
| Amount arising during the year | 2,167 | (776) | 1,390 | 1,200 | (240) | 959 | 19,177 | (6,867) | 12,301 |
| Reclassification adjustments to profit or loss | (5,536) | 1,543 | (3,993) | (3,830) | 1,137 | (2,693) | (48,991) | 13,655 | (35,336) |
| Net change during the year | (3,369) | 766 | (2,602) | (2,630) | 896 | (1,734) | (29,814) | 6,779 | (23,027) |
| Share of other comprehensive (loss) income of associates and joint ventures accounted for using equity method: | | | | | | | | | |
| Amount arising during the year | 18 | - | 18 | (0) | - | (0) | 159 | - | 159 |
| Reclassification adjustments to profit or loss | - | - | - | - | - | - | - | - | - |
| Net change during the year | 18 | - | 18 | (0) | - | (0) | 159 | - | 159 |
| Subtotal | 647 | 781 | 1,428 | (22,829) | 928 | (21,901) | 5,726 | 6,912 | 12,637 |
| Total other comprehensive (loss) income | ¥ 446 | ¥ 852 | ¥1,298 | ¥(23,220) | ¥1,197 | ¥(22,022) | \$ 3,947 | \$ 7,540 | \$11,487 |

32. Earnings Per Share

The basis of the calculation of basic loss or earning per share and diluted loss or earnings per share is as follows:

| | Millions except as othe | s of yen, rwise indicated |
|---|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) |
| Profit (loss) attributable to owners of the parent company | ¥ 15,263 | ¥ (7,826) |
| Profit not attributable to owners of the parent company | 1,068 | 311 |
| Profit (loss) used for basic earnings per share | 14,195 | (8,137) |
| Adjustment for diluted profit | - | - |
| Diluted earnings (loss) | 14,195 | (8,137) |
| Weighted-average number of shares (Thousands of shares) | 121,909 | 120,019 |
| Increase in number of common stock shares for diluted earnings per share | | |
| Increase due to exercising stock options (Thousands of shares) | 892 | - |
| Weighted-average number of shares outstanding for diluted earnings per share (Thousands of shares) | 122,801 | 120,019 |
| Basic earnings (loss) per share (Yen) | ¥ 116.44 | ¥ (67.80) |
| Diluted earnings (loss) per share (Yen) | 115.59 | (67.80) |
| | | |

| | Thousands of U.S. dollars, except as otherwise indicated |
|---|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Profit attributable to owners of the parent company | \$135,071 |
| Profit not attributable to owners of the parent company | 9,451 |
| Profit used for diluted earnings per share | 125,619 |
| Adjustment for diluted profit | - |
| Diluted earnings | 125,619 |
| Basic earnings per share (U.S. dollars) | \$ 1.03 |
| Diluted earnings per share (U.S. dollars) | 1.02 |

(Note) 1.Diluted loss per share for the period ended 31st December, 2016 equals basic earnings per share because there are no potential shares.

2.Basic loss per share and diluted loss per share were calculated dividing by the average number of shares after deducting the average number of treasury shares during the period from loss attributable to owners of the parent company after deducting the amount attributable to owners of hybrid capital.

33. Business Combinations

There was no business combination during the fiscal year ended December, 2017.

Acquisition of DMG MORI AG shares during the fiscal year ended 31st December, 2016

The Company acquired additional shares of DMG MORI AG for a consideration of ¥61,303 million for the fiscal year ended 31st December, 2016.

This transaction was accounted for as an equity transaction with non-controlling interests, and as a result noncontrolling interests decreased by ¥28,262 million and capital surplus decreased by ¥33,040 million in the consolidated statement of financial position.

For the related transaction that occurred after this transaction, please refer to Note 34 "Domination and Profit and Loss Transfer Agreement."

34. Domination, Profit and Loss Transfer Agreement

(1) Entry into force of Domination, Profit and Loss Transfer Agreement

On 24th August, 2016, the DPLTA between DMG MORI GmbH (hereinafter "GmbH"), one of the Company's consolidated subsidiaries, and DMG MORI AKTIENGESELLSCHAFT (hereinafter, "AG") came into effect.

AG is subject to the DPLTA based on German Company Law, which enables an entity to give direct instructions to a decision-making body, normally the board meeting, of another entity. In addition, under the agreement all profit or loss of AG is transferred to GmbH.

Shareholders of AG, except for GmbH (hereinafter the "external shareholders"), have two options; either to offer their shares to GmbH in exchange for a cash compensation amount, or to receive a recurring annual cash compensation from GmbH.

Therefore, GmbH undertakes upon demand of the external shareholders to purchase their shares in exchange for the amount of €37.35 per share, or to pay them the recurring annual cash compensation of €1.17 (including tax) per share. The obligation of GmbH to purchase the shares was originally limited to two months after the effective date of the agreement. However, since some external shareholders initiated a judicial appraisal proceeding to achieve a higher recurring compensation or a higher exercise price of the share purchase option, as the result, the time limitation period has been extended to two months after the date on which the final ruling has been announced in the Federal Gazette based on the German law.

The amounts of the recurring cash compensation and the exercise price of the share purchase option have been audited and certified as fair by independent auditors appointed by a German court and therefore, the Group believes that those amounts are appropriate.

(2) Outline of accounting treatments and significant noncash transactions

Due to the entry into force of the DPLTA, the Group recognized the net present value of the expected future payment obligations as other financial liabilities in the consolidated statement of financial position. As a result of revaluation of the net present value of the expected future payment obligations to external shareholders at the end of fiscal year ended 31st December, 2017, the Group recognized ¥2,947 million (\$26,080 thousand) of other financial liabilities (current) and ¥98,744 million (\$873,841 thousand) of other financial liabilities (noncurrent) in the consolidated statement of financial position, and ¥2,071 million (\$18,327 thousand) of financial expenses in the consolidated statement of profit or loss.

35. Significant Subsidiaries

The Group does not recognize significant non-controlling interests in the subsidiary.

36. Related Party Transactions

(1) Transactions with related parties

Transactions with related parties carried out during the reporting period are as follows:

| | | | Millions of yen | | Thousands of U.S. dollars |
|------------|--------------------------|----------------------------|--|--|---|
| | | | Transactio | Transaction amounts | |
| Category | Name of related parties | Details of transactions | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Associates | DMG MORI Finance GmbH | Sales of products | ¥12,948 | ¥13,298 | \$114,584 |

Receivables and payables due from and to major related parties are as follows:

| | | | Millions of yen | | | Thousands of U.S. dollars | | |
|------------|--------------------------|----------------------------|-----------------|-----------|-------------|---------------------------|-------------|------------|
| | | | 31st Decem | ber, 2017 | 31st Decen | nber, 2016 | 31st Decem | ıber, 2017 |
| Category | Name of related parties | Details of transactions | Receivables | Payables | Receivables | Payables | Receivables | Payables |
| Associates | DMG MORI Finance GmbH | Sales of products | ¥1,485 | ¥ 801 | ¥679 | ¥451 | \$13,142 | \$7,088 |

(2) Key management compensation

The breakdown of key management compensation in the Group is as follows:

| | Million | Thousands of U.S. dollars | |
|--------------------------------|--|--|--|
| | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) | Fiscal year 2016 (1st January, 2016 through 31st December, 2016) | Fiscal year 2017 (1st January, 2017 through 31st December, 2017) |
| Compensation and bonuses | ¥1,789 | ¥1,792 | \$15,832 |
| Share-based payments | - | - | - |
| Retirement benefit payments | - | 954 | - |
| Total | ¥1,789 | ¥2,746 | \$15,832 |

[Note] Key management compensation is paid to directors, including outside directors, of the Company, and important director executive officers of subsidiaries such as DMG MORI AG. The compensation and bonuses paid to the directors of DMG MORI AG totaled ¥1,096 million (\$9,699 thousand) and ¥1,263 million for the year ended 31st December, 2017 and 2016, respectively.

37. Contingent Liabilities

The breakdown of guarantee obligations is as follows:

| | Millions of yen | | Thousands of U.S. dollars |
|--|------------------------|------------------------|------------------------------|
| | 31st December, 2017 | 31st December, 2016 | 31st December, 2017 |
| Guarantees for lease payments by customers | ¥2,486 | ¥3,060 | \$22,000 |
| Other guarantee obligations | 535 | 214 | 4,735 |
| Total | ¥3,021 | ¥3,275 | \$26,735 |

(Note) Guarantee obligations are not recognized as a financial liability, as the probability of executing these guarantees is very low.

38. Events after Reporting Period

There is no applicable event.

Basic information as of December 31, 2017

Corporate Profile

| Company Name | DMG MORI CO., LTD. | |
|---------------------------|--|--|
| Capital | 51,115 million yen | |
| Established | October, 1948 | |
| Registered Head Office | Yamato-Koriyama City, Nara, Japan | |
| National Head Office | 2-35-16 Meieki, Nakamura-ku, Nagoya City, Aichi 450-0002, Japan | |
| Tokyo Global Headquarters | 2-3-23, Shiomi, Koto-ku, Tokyo 135-0052, Japan | |
| Business Operations | Manufacture and Sale of Machine Tools (Machining Centers, CNC lathes and other products) | |
| Number of employees | 12,375 (consolidated) | |
| Website | https://www.dmgmori.co.jp | |

Share

| Total number of authorized shares | 300,000,000 |
|-----------------------------------|---|
| Number of shares outstanding | 120,918,518 (excluding 5,035,165 treasury shares) |
| Number of shareholders | 28,884 |

■ Top share holders

| Name | Position (in thousand shares) | % of outstanding shares |
|--|-------------------------------|-------------------------|
| Japan Trustee Services Bank, Ltd. (Trust account) | 4,942 | 4.09 |
| The Master Trust Bank of Japan, Ltd. (Trust account) | 4,108 | 3.40 |
| Masahiko Mori | 3,540 | 2.93 |
| GOLDMAN SACHS INTERNATIONAL | 3,526 | 2.92 |
| MORI MANUFACTURING RESEARCH AND TECHNOLOGY FOUNDATION | 3,500 | 2.89 |
| DMG Mori Co., Ltd. Employee Stock Ownership Plan | 2,651 | 2.19 |
| Japan Trustee Services Bank, Ltd. (Trust account 9) | 2,645 | 2.19 |
| STATE STREET BANK AND TRUST COMPANY | 2,324 | 1.92 |
| The Nomura Trust and Banking Co., Ltd (Investment trust) | 2,232 | 1.85 |
| Japan Trustee Services Bank, Ltd. (Trust account 5) | 2,087 | 1.73 |

■ Shareholder composition



| | Number of shares (1,000 shares) | Number of shareholders |
|---|------------------------------------|------------------------|
| Foreign corporate bodies (other than individuals) | 49,014 | 312 |
| Individuals/ Others | 33,514 | 28,236 |
| Financial institutions | 30,692 | 61 |
| Treasury shares | 5,035 | 1 |
| Other corporate bodies (Japan) | 4,297 | 202 |
| Securities companies | 3,383 | 51 |
| Foreign individual investors | 15 | 21 |

Distribution by position



| | Number of shares (1,000 shares) | Number of shareholders |
|--------------------------|------------------------------------|------------------------|
| 1,000,000 shares or more | 56,660 | 25 |
| 500,000 shares or more | 23,827 | 35 |
| 100,000 shares or more | 16,912 | 72 |
| 50,000 shares or more | 4,559 | 64 |
| 10,000 shares or more | 6,492 | 340 |
| 5,000 shares or more | 2,875 | 468 |
| 1,000 shares or more | 9,411 | 5,829 |
| 500 shares or more | 2,084 | 3,548 |
| Up to 500 shares | 3,130 | 18,503 |

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