SUSTAINABILITY REPORT

FANUC

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This “Sustainability Report 2024” is a PDF version of the information on the website as of November 2024.
The website may also be frequently updated from November 2024.

Sustainability Information Guidelines Referenced

- GRI Standards (Global Reporting Initiative)
- Environmental Reporting Guidelines (2012 edition / 2018 edition) (Ministry of the Environment)
- ISO26000

Sustainability Report 2024

General

Sustainability Basic Policy

The FANUC Group will continue to provide indispensable values throughout the world in the field of factory automation, through our never-ending technical innovations, abiding by our basic principles of “Genmitsu (Strict Preciseness)” and “Tomei (Transparency).” As such, increasing our corporate value shall be pursued as well as contributing to the realization of a sustainable society.

FANUC Sustainability Mark

This mark consisting of a “tree leaf” and an “infinity” symbol represents FANUC’s commitment to creating a sustainable society. Through continuous technological innovations, we endeavor to overcome environmental and social challenges to contribute to the sustainability of society.

Materiality

FANUC, which has continuously pursued Factory Automation (FA), commands an exceptionally high market shares for CNC systems and industrial robots. FANUC products of FA, ROBOT, and ROBOMACHINE businesses are used at factories throughout the world. Any interruption in the supply of such products would thus lead to stoppages at customers' factories. Furthermore, as the Company's products also contribute to the decarbonization of and productivity improvements at customers' factories, they have an important and extensive impact on the environment and society.

With its customer-oriented products, FANUC is shaping the future of the manufacturing industry.

If FANUC is to achieve sustainable growth under its basic principles of "Genmitsu (Strict Preciseness)" and "Tomei (Transparency)," it must create both social and economic value and conduct long-term management without focusing solely on short-term gains. Doing so will require us to solve social issues through our businesses in order to contribute to a sustainable society.
In this light, we have revised our materiality based on our belief that their resolution is important for such management to be successful.

Process for Identifying Materiality

STEP1 Clarification of Issues

FANUC determined social and customer needs and clarified sustainability-related issues with reference to global disclosure standards,*ESG rating agencies, and industry trends.

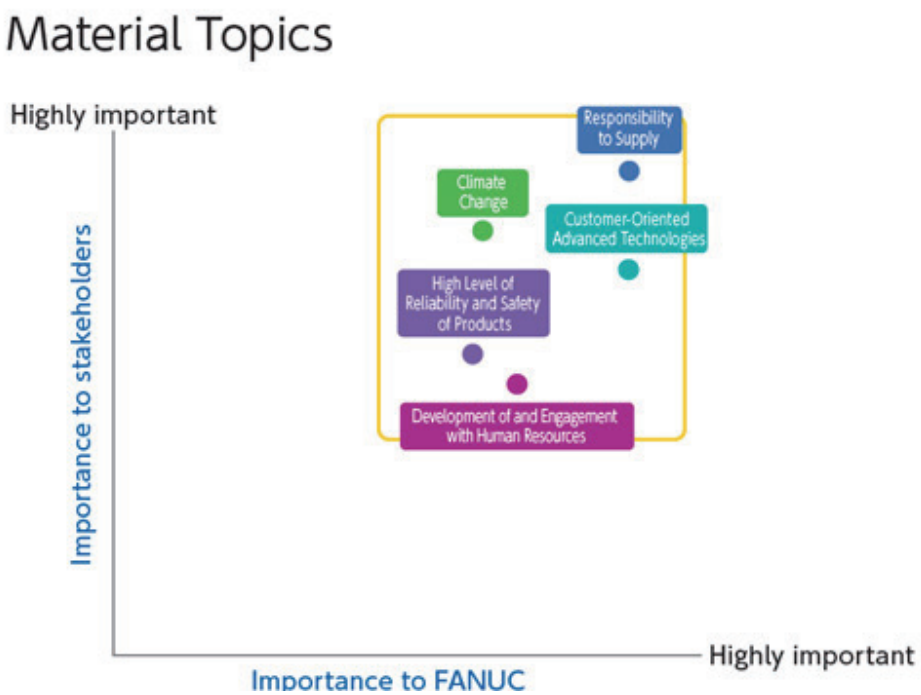
*ISO 26000, SDGs, GRI Standards, and SASB Standards

STEP2 Examination of the Importance of Issues

The Sustainability Committee, which is chaired by the Representative Director,President and CEO and composed of members tasked with spearheading management, such as the Chairman and the general managers of each business division, evaluated each of the issues clarified and classified. Through questionnaires and individual interviews, all committee members evaluated said issues in terms of their importance to FANUC and their importance to stakeholders. The committee also reflected in its evaluations objective opinions obtained through dialogues with outside experts and investors.

STEP3 Identification of Materiality

The Company narrowed down issues through discussions by the Sustainability Committee. Thereafter, taking into account the opinions of outside directors, we identified our Materiality following deliberations at a meeting of the Board of Directors.



STEP4 Future Actions

FANUC will promote initiatives in relation to its Materiality and raise awareness thereof Companywide. Moreover, with the Sustainability Committee taking the lead in periodically revising the Materiality and with the Board of Directors deliberating and monitoring them, we will promote management based on our Materiality.

Materiality

Responsibility to Supply : Building and maintaining long-term relationships of trust with customers

• Why the Issue is Material

Fulfilling our responsibility to supply is of the utmost importance for maintaining relationships of trust with customers. As any interruptions in supply from FANUC would lead to stoppages at customers' factories, we take such responsibility extremely seriously. A strength of the Company is its continuous operation of a maintenance service system for customers, while its ability to stably supply products and services enables FANUC to offer added value. Fulfilling our responsibility and continuing to exist as a company needed by society are crucial.

• Ideal state

As a supplier of capital goods, FANUC will anticipate a wide range of scenarios, including natural disasters and geopolitical risks faced by the Company and its suppliers. Mindful of such scenarios, we will supply products in a stable manner and continuously operate a sophisticated maintenance service system in accordance with global standards while paying close attention to environmental and social trends. In this way, we will contribute to improving the uptime of factories around the world.

Customer-Oriented Advanced Technologies : Anticipating and creating customer needs

• Why the Issue is Material

Pursuing a customer-oriented approach has been and will remain a key value in FANUC's stance. Our ability to promptly provide feedback on our research and development efforts by using our products at companyowned factories serves as a strength. Anticipating customer needs based on such information enables FANUC to enhance customer satisfaction while helping it maintain and improve product competitiveness and shape the future of the manufacturing industry. Maintaining our industry-leading position by offering highly advanced products that are based on innovative technologies and which underpin production floors is thus vital.

• Ideal state

FANUC will firmly grasp customer needs by rigorously ensuring that it constantly pursues a customeroriented approach. Through the development and popularization of advanced technologies, we will continuously improve customer satisfaction and shape the future of the manufacturing industry by developing products that anticipate customer needs and the changing times.

Climate Change : Contributing to climate change mitigation

• Why the Issue is Material

Greenhouse gas emissions associated with the use of its products at customers' factories far outweigh such emissions resulting from FANUC's business activities. Accordingly, there is an increasing need among customers and in society for energy-saving products, making it essential that we contribute to efforts in relation to carbon neutrality. FANUC can curb the energy consumption of its customers by improving the productivity of factories around the world through highly energy-efficient products arising from innovation.

• Ideal state

Viewing climate change as both a risk and an opportunity, FANUC will promote the development of highquality, environment-friendly products, including those that realize energy-savings and high levels of energy efficiency. Doing so will allow us to contribute to the achievement of carbon neutrality and a sustainable society.

High Level of Reliability and Safety of Products : Maximizing Uptime in customers' sites

• Why the Issue is Material

FANUC's product development is centered on the principle of "Reliable, Predictable, Easy to Repair." The high level of reliability realized by the durability of such products helps improve productivity at factories, thereby raising the competitiveness of FANUC as well as of its customers. In addition, FANUC's products are vital in that they not only protect those operating them from physical hazards but also boast a high level of cyber security.

• Ideal state

FANUC will maintain and improve the high quality of its products and offer extensive maintenance services to improve the uptime of customers' factories. We will also aim to realize safe and secure production sites.

Development of and Engagement with Human Resources : Cultivating human resources to lead the future of the manufacturing industry

• Why the Issue is Material

Outstanding human resources are the driver of corporate activities, making them indispensable to the sustainability and innovation of companies. Efforts to develop human resources must thus be reinforced from a medium- to long-term perspective, requiring proactive and continuous efforts that lead to improved motivation.

• Ideal state

Given that human resources are of the utmost importance for ensuring growth over the medium- to longterm, FANUC will strive to enhance its conditions for developing human resources and further improve their motivation. We will attract and secure outstanding human resources and seek to establish an organizational culture and environment conducive to cultivating and enhancing human resources who will lead the future of the manufacturing industry.

Sustainability Promotion Framework

At the “Sustainability Committee” chaired by the Representative Director, President and CEO, we will deliberate and make decisions on important policies and measures related to sustainability, and report to the Board of Directors.

- Risk Management Committee
  To address risks that may hinder the continuity of our business, the enhancement of our corporate value, or the sustainable development of our corporate activities, we have established a Risk Management Committee and risk management policies, and we are conducting appropriate risk management under the supervision of the Board of Directors.

- Information Security Committee
  Reinforcement of information security system

- Compliance Committee
  Planning and implementation of various measures to improve compliance

- ISO14001 Meeting
  Decisions on environmental activity plans, formulation of medium- to long-term targets

- Health and Safety Committee
  Deliberations and decisions regarding basic policies and measures on health and safety

Dialogue with Stakeholders

Stakeholders	Communication method	Frequency	Contents
Customers	Sales representatives	As needed	Collect and provide feedback on demands and requests to FANUC. In addition, give customers tours of factories to enhance their understanding about new products and development schemes.
	Service	As needed	More than 2,300 service and support staff members around the world provide telephone support, onsite customer support, and maintenance parts management.
	Membership website	As needed	Answer customer inquiries via the websites where they can obtain product and maintenance information, or by email and chatbot. In addition, we enable customers to purchase maintenance parts through our membership website.
	New products open house show	Every year	Invite customers and introduce our latest products.
	Exhibitions	As needed	Exhibit at trade shows in Japan and abroad to introduce our latest products.
	ESG Rating	As needed	Answer questionnaire for EcoVadis, CDP etc.
Employees	Labor union	At least twice a month	Hold discussions, negotiations, and exchanges of opinions through regular monthly meetings and committees, quarterly meetings, and labor-management negotiations.
	Engagement survey	Every year	We conduct an “engagement survey” to ascertain employees’ awareness. Each organization uses the results of the survey to identify organizational issues and implements countermeasures in a PDCA cycle to consistently improve the workplace environment and enhance employee job satisfaction.
Shareholders	General meeting of shareholders	Annually	Report on business reports, consolidated and non-consolidated financial statements, and audit results, and deliberate and make resolutions on matters to be resolved after Q&A.
	Financial results briefing	Quarterly	Hold briefings and telephone conferences on the contents of financial results and business forecasts, as well as engage in Q&A sessions.
	Individual dialogues with institutional shareholders	As needed	Explain FANUC's initiatives and governance, and exchange opinions.
	ESG disclosure	As needed	Publicize ESG activities, as needed.
Communities	Coexistence with communities	As needed	Contribute to the revitalization of the local economy through tax payments, job creation, and having business with local companies.
	FA Foundation	As needed	Award prizes to recognize research results on factory automation (FA) and industrial robot technology.
	Economic and industry associations	As needed	Participate in the planning and implementation of various initiatives by organizations.
	Public-private joint projects	As needed	Participate in various public-private joint projects and promote technical exchanges.

Coordination with External Initiatives

FANUC promotes partnerships with various organizations including public institutions and organizations in industrial and academic fields, to realize sustainable development.

Public Institution

The Consortium of Human Education for Future Robot System Integration (CHERSI)	FANUC is actively engaged in robotics human resource development activities, such as continuously participating in CHERSI, which will develop human resources specialized in robotics, providing lectures at technical colleges and vocational high schools, holding training courses at FANUC ACADEMY for teachers, and creating PR videos for students at the International Robot Exhibition.
New Energy and Industrial Technology Development Organization (NEDO)	FANUC participated in the Strategic Innovation Program for Energy Conservation Technologies conducted by NEDO by submitting a research plan on the development of machine tools for realizing energy saving, “R&D on Energy-Saving Machine Tools that Apply New Structural Materials,” jointly with the Japan Machine Tool Builders' Association and other organizations and achieved the plan's energy-saving targets through research extending over three years.

Economic and Business Associations

FA Foundation	This foundation was established for the purpose of giving awards for research achievements related to FA (factory automation) and industrial robot technology. It is operated using the interest from funds donated by FANUC at the time of its establishment and subsequent donations by FANUC.
Japan Business Federation (KEIDANREN)	As a member of KEIDANREN, FANUC strives to resolve international issues and strengthen economic relations with other countries through dialogue with concerned parties and attendance at committees, while complying with the Charter of Corporate Behavior.
Japan Machinery Federation	This organization aims to contribute to the overall progress and development of the machinery industry and to the advancement of the Japanese economy. FANUC belongs to this organization as a company member and serves as a general executive officer.
Japan Machine Tool Builders' Association	The Association is a comprehensive organization related to the machine tool business, which is mainly comprised of machine tool builders in Japan. FANUC's Chairman, Dr. Yoshiharu Inaba, serves as its Chairman.
Japan Robot Association	The Association is an organization that encourages research and development on robots and associated system products, and promotes the use of robot technology. FANUC's President and CEO, Kenji Yamaguchi, serves as its Director.
The Japan Society of Industrial Machinery Manufacturers	FANUC is a member of the Society, which is an organization that drafts and promotes measures to increase productivity and to rationalize production structure in the field of environmental equipment, plastic machinery, and other industrial machinery.
Optoelectronics Industry and Technology Development Association	FANUC regularly participates in the Multi-Technology Integrated Optical Process Study Group hosted by the Association.
Japan Forming Machinery Association	FANUC participates in the drafting of relevant ISO standards as a member of this Association.
Japan Gear Manufacturers Association	FANUC sends lecturers to the human resources development course “Gear College” every year.
ROBOT Industrial Basic Technology Collaborative Innovation Partnership (ROBOCIP)	FANUC participates as a member of the ROBOT Industrial Basic Technology Collaborative Innovation Partnership (ROBOCIP), in which robot manufacturers collaborate in basic technological research of industrial robots, with the aims of broadening and deepening the scale and content of research beyond what could be accomplished independently as well as strengthening the foundation for technological innovation in line with the SDGs (Sustainable Development Goals).
TCFD (Task Force on Climate-related Financial Disclosures)	In December 2021, we have agreed to the TCFD recommendations and disclosed information on the impact of climate change on our business activities.
SBT (Science Based Targets) initiative	GHG emissions reduction targets have been certified by the SBT initiative.

Academic Associations

Participation in various conferences	FANUC participates as a sponsor in academic societies of relevant fields (The Japan Society for Precision Engineering, The Japan Society of Mechanical Engineers, The Institute of Electrical Engineers of Japan, The Robotics Society of Japan, The Japan Society for Abrasive Technology, The Society of Instrument and Control Engineers, The Japan Society of Polymer Processing, etc.), as well as in academic lectures, to collect the latest technical information. We also participate in planning and management, such as being elected as a director of the Japan Society for Precision Engineering and the Japan Society of Mechanical Engineers in 2024.
Exchange of opinions with universities	Every year, FANUC invites faculty members of several universities to its new products open house show in April, where we introduce our latest products and have the professors introduce the latest technologies, targeting technical exchange.
Collaboration with universities	FANUC collaborates with major domestic and overseas universities, such as the University of Tokyo, Tokyo Institute of Technology, the University of California, Berkeley (USA), and other universities to conduct joint research and exchange opinions. We also provide scholarship donations to help cultivate young researchers for the future.

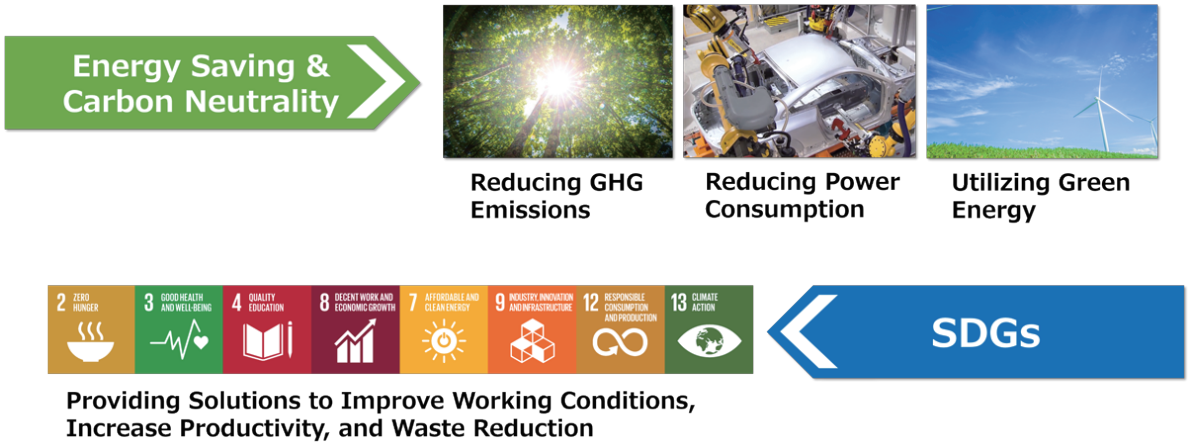
Sustainability Report 2024

Approach to Sustainability

Approach to Sustainability

FANUC operates the businesses of FA, ROBOT, and ROBOMACHINE. Since its foundation, we have developed a tough corporate structure by focusing on these businesses, without blindly seeking to expand the scale of its business. And we aim to remain a company trusted by stakeholders by working to provide essential value to not just customers but also to society through persistent technological innovation in all of our businesses and fulfilling our social responsibility through our business activities. Demand for factory automation is expected to continue to grow. FANUC will continue to aim to achieve SDGs by creating new value and working to resolve environmental issues such as climate change and other social issues including the need to improve work environment.

Two Perspectives on Sustainability



FANUC's two perspectives on sustainability are “energy saving and carbon neutrality" and “SDGs.”

Energy Saving & Carbon Neutrality

We are engaged in efforts to reduce greenhouse gas emissions, reduce power consumption, and utilize green energy by switching from hydraulic to electric power.

SDGs

We will contribute to achieving 8 of the 17 goals, in particular, improving the working environment, increasing productivity, reducing waste, etc.

Initiatives in FA Business

In FA business, we provide CNCs, servo motors, and servo amplifiers which are used in machinery including machine tools and industrial machinery, and we are working to reduce energy consumption based on the following three elements.

- Reduce power consumption dependent on processing (reduce power consumption of CNC systems, shorten processing time, etc.)
- Reduce power consumption of the entire machine (reduce operating time, etc.)
- Reduce power consumption of the entire factory (optimize the entire factory)

In recent years, the environment surrounding machine tools has changed significantly, with measures being taken to address the shortage of labor, the importance of passing on skills to the next generation, and the response to the digital native generation.
Our brand new CNC model, Series 500*i*-A, α*i*-D series SERVO, and α*i*-D series SERVO AMPLIFIER contribute to improving the working environment and productivity by promoting ease of use and automation throughout the entire product lifecycle, from mechanical design to processing technology and maintenance during actual operation. Furthermore, we have achieved further improvements in processing performance and energy conservation through the application of the latest technology.

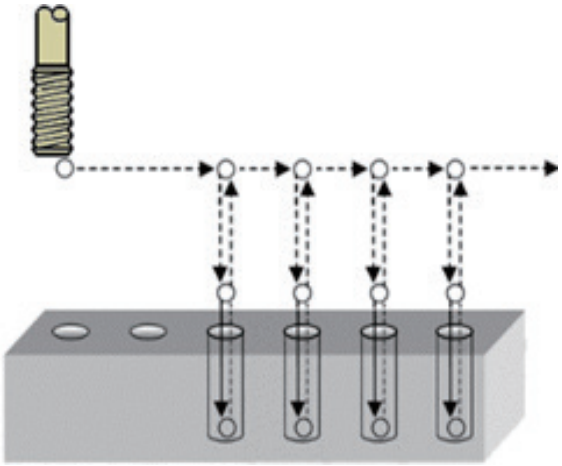
Reduction of power consumption dependent on machining

- Reduce power consumption of CNC systems
  - Development of low power consumption CNC
  - Motors optimally designed to conserve energy
  - Motor loss reduction by high-speed current control
  - Amplifier loss reduction through the application of low-loss power elements (loss reduction has been achieved continuously since the past and is currently up to 35% less than in 1995)

- Power supply regeneration returns deceleration energy to the power supply for effective use (35% reduction compared to the resistance regeneration method in our example)

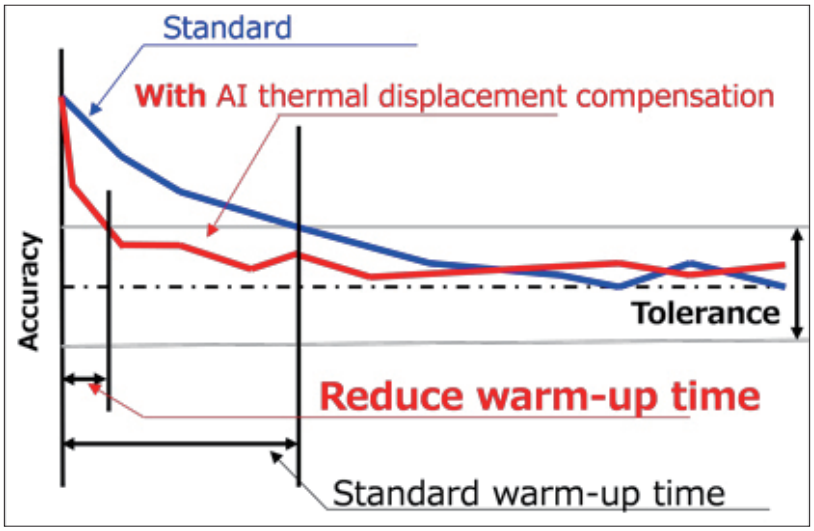
- Control technology for cycle time reduction reduces operating time of auxiliary equipment, etc.
  - Drilling and tapping processes are sped up through the optimization of machining paths
  - Cycle time reduction through speed control that optimizes cutting load
  - Handling of the latest machining tools and technologies, such as turning through a reciprocating motion
  - Improved efficiency of peripheral device operation, etc., through faster sequence control

High speed drilling and tapping



- Shortening cycle time by improving the motor's accelerating performance
- AI thermal displacement compensation using machine learning corrects thermal displacement immediately after machine power-on. Reduces warm-up time and power consumption. (In the example below, warm-up time is reduced to 1/6.)

Reduction of warm-up time



Power consumption reduction of the entire machine

- Displays supplied power and power recovered by power regeneration in real time on the power consumption monitor
- Provides an energy saving level selection function that allows selection of operation settings that prioritize machining time or power consumption, enabling confirmation of power consumption and machining time. Level can be set by confirming the power consumption amount and machining time on the CNC screen
- Reduces power consumption during trial machining by utilizing machining simulation to reduce trial machining

Power consumption reduction of the entire machine

- FIELD system Basic Package, a data collection and management system for factories, visualizes operational status and power consumption, and supports the optimization of overall factory operations and energy reduction.

Initiatives in ROBOT Business

- We conduct product development that is environmentally conscious. In the development of the CRX, the weight was significantly reduced to 40kg, compared to the 150kg mass of the conventional 10kg payload class machine. This has reduced power consumption to 100-300W.
  Moreover, we have developed the same payload class machine LR-10*i*A/10, whose weight was reduced to 46kg and its power consumption to 140-400W.

CRX-10*i*A

LR-10*i*A/10

- In addition to weight reduction, we are working on various other initiatives.
  - Reduction and visualization of power consumption through energy-saving functions
  - Optimization of power consumption via an offline simulation software ROBOGUIDE
  - Reduction of CO_2 emissions during transportation through weight reduction
  - Peak power dispersion through nighttime operation of robots
  - Contribution to an increase in the ratio of renewable energy

Initiatives in ROBOMACHINE Business

ROBODRILL initiatives

- Improved productivity
  - High machining performance...Reduces cycle time with a unique fixed cycle that ensures smooth and lean operation.
  - High operating rate...FIELD system Basic Package collects and visualizes operating information, contributing to improved operating rate and work efficiency.
  - Ease of use...Utilization of dedicated G-code significantly reduces programming time.
- Power consumption reduction
  - Power supply regeneration...Motor regenerative energy is returned to the power supply for reuse.
  - nergy-saving functions...Various energy-saving functions minimize power consumption the machine itself and peripheral equipment during standby.
  - Power consumption monitor...Supports energy-saving activities by visualizing power consumption. Possible to centrally monitor it with FIELD system Basic Package.
- Waste reduction
  - Rechargeable battery unit...Reduces disposal of backup batteries, making the machine maintenance-free.
  - Longer spindle life...Environmental resistance has been improved by adding air purge to the rear side of the spindle.
  - Longer life of each spindle cover...Pantograph mechanism has been adopted and cushion rubber wiper reinforced to improve durability.

ROBOSHOT initiatives

- Improved productivity
  - High molding performance...Simultaneous operation reduces cycle time.
  - High operating rate...ROBOSHOT-LINK*i*2 can be used to analyze the operation rate and examine ways to improve it.
  - Ease of use...Outstanding operability achieved by a large screen display unit.
- Power consumption reduction
  - Power regeneration...Motor regenerative energy is returned to the power supply for reuse.
  - Heat insulation cover for the barrel...Suppresses heat dissipation from the heater and reduces power consumption.
  - Power consumption monitor...Supports energy-saving activities by visualizing power consumption.
  - Plasticization energy monitor...Supports energy saving by visualizing the energy consumed during the plasticization process (melting of resin).
- Support for environmentally friendly resins
  - Recycled resins...The deep groove of the plasticizing screw and precision metering control enables stable measurement of recycled resin (crushed material).
  - Biomass resin...Molding of biomass-derived resin contributes to carbon neutrality
  - Appropriate quantity feeder…Stabilizes the measurement of recycled resin with a large variation in particle size, and contributes to a reduction in the defect rate.

ROBOCUT initiatives

- Improved productivity
  - High machining performance...High-speed machining conditions improve machining speed. In addition, the higher precision of the nozzle opening process can reduce setup time and the number of post-processing steps, thereby improving productivity.
  - High operation rate...Operation rate is improved by high wire connection rate using the AWF3 automatic wire connection function.
  - Ease of use...Guidance function prevents operation errors and supports lean operation.
- Power consumption reduction
  - Discharge power regeneration...Energy stored in the feed cable when generating discharge pulses is regenerated and reused in the DC power supply of the discharger.
  - Sleep mode...Minimizes power consumption during standby to reduce unnecessary power consumption.
  - Power consumption monitor...Visualizes power consumption to support energy-saving activities. ROBOCUT-LINK*i* enables one-stop remote monitoring of power consumption by more than one ROBOCUT.
- Longer life of expendable parts
  - Longer life of filter...Filter life is extended through flow control.
  - Extended electrode pin life...Contact pressure between wire and electrode pin is increased to suppress wear caused by electrical discharge, extending the life of the electrode pin.
  - ROBOCUT-LINK*i*...The usage of expendable parts can be monitored remotely.

FA Business

- Products
  - CNCs, servos, lasers
- Strengths
  - FANUC's basic technology
  - Top-level global market share of CNCs (FANUC estimate)

Business Overview

The FA business is the origin of FANUC and its basic technology. FANUC is the first private-sector company in Japan to have developed numerical control (NC) and servo technologies that control machine tools using numerical information. Until then, highly skilled engineers, who have acquired know-how through many years of training, were indispensable for high-precision processing by machine tools. FANUC made it possible to complement skilled engineers' skills with NCs and servos. Computer-controlled NCs (CNCs) and servos further made it possible to process complex shapes and produce varied items efficiently. Currently, FANUC offers CNCs and servos covering a broad range from simple machine tools to composite machining equipment with complex configurations to industrial machinery. Further, demand for introduction of robots in machine tools is increasing at machining sites, with an aim to automate processes or labor saving. Believing improved compatibility between machine tools and robots is important, FANUC is developing the functions to enhance it.

Value Created by FA Business

High-machining performance CNCs and high-speed, high-precision servos contribute to improved productivity as they enable more precise, higher-speed machining. We have implemented energy saving features in our servos. Laser products contribute to improving quality of products of users with their high-quality machining capability supported by FANUC's CNCs and servos installed in them. It is essential to improve operating rates for improving productivity of factories. In order to avoid extended suspension of production lines due to machine trouble or emergency maintenance work, we attach importance to functions and designs for preventive maintenance. Factory operation at high operating rates becomes possible through monitoring of insulation resistance of motors, drops in the numbers of rotations of fan motors for CNCs and servo amplifiers, etc. and conducting preventive maintenance in advance of a halt of the machine.

Ensuring Customer Safety

It is important to help operators not used to operating machines use FANUC products safely, as the numbers of people working in the manufacturing industry and highly skilled engineers are expected to decrease. FANUC's products are compliant with safety standards, including the ISO/IEC standards, and certified by accreditation organizations. In addition, sufficient attentions are paid to safety use as CNCs are equipped with functions to suspend operation upon receiving an alarm in case of operational errors.

Awards and Topics Related to FA Business

The Main Prize of the 67th Nikkan Kogyo Shimbun Best Ten New Products Awards (2023)

FANUC α*i*-D series SERVO

The α*i*-D servo system has achieved a 10% reduction in overall servo system losses compared to our previous models, thanks to the use of high-efficiency motors and current control, amplifiers equipped with the latest power elements, and a newly designed low-loss AC reactor with a unique structure.
In addition to the power regeneration technology that has been implemented so far, this will significantly contribute to the development of energy-efficient machine tools. The above factors were recognized, and the product received the 66th Nikkan Kogyo Shimbun Top 10 New Products Award.

The Main Prize of the 43rd Japan Society for Precision Engineering (JSPE) Technology Award (2023)

FANUC CNC Digital Twin (Project title: High-speed simulator for numerical control devices that takes into account the dynamic characteristics of each axis to realize a high-precision digital twin of machine tools)

By incorporating a servo model that simulates servo control and mechanical characteristics into CNC Guide 2, a CNC simulator, the quality of machining simulations has been greatly improved. This contributes to increased machining productivity, fewer trial runs, and reduced consumption of materials, tools, oils and greases, and electricity, thereby lowering environmental impact.

ROBOT Business

- Products
  - Robots
- Strengths
  - Products applied with CNCs and servos, FANUC's basic products
  - Top-level global market shares (FANUC estimate)

Business Overview

FANUC targets industrial robots. We concentrate on helping customers automate or robotize their factories and contributing to improved productivity. Our industrial robots, which include types for welding, material handling (transportation of articles), assembly, and painting, according to application, are used in wide-ranging industries, including automotive, electronic parts, logistics, food, pharmaceuticals, and cosmetics. FANUC's industrial robots are general-purpose robots and used in many industry sectors.

Value Created by ROBOT Business

Robots help solve a variety of issues society is facing. Robots, which perform strenuous work as programmed even under harsh environment, release workers from dangerous, dirty, and difficult jobs. Robots can also improve productivity and reduce night shift for workers as they can perform precise work over a long time at a certain speed, even at night.
COVID-19 outbreaks occurred in 2020. In such a time, robots can help protect health and safety of people by substituting some workers to allow them to avoid the "Three Cs" (closed spaces, crowded places, close-contact settings).
Introducing Zero Down Time (ZDT), a preventive maintenance and problem prediction using IoT, can service robots before they break down, helping to avoid extended suspension of a production line just because of trouble in a single robot.
Robots thus not only promote automation and robotization of factories and contribute to improved productivity but also help improve work environment, ultimately achieving improved productivity in labor-intensive industries through technology, a target of SDGs.

Robots for a new age

The market of "collaborative robots," which can work alongside human workers, is growing. As collaborative robots automatically stop safely when touched by humans, they do not require safety fences. By assisting work alongside human workers, operators can avoid strenuous work and workers whose physical power is weak can work safely.
The CRX series, light-weight collaborative robots FANUC announced in December 2019, are a new type of collaborative robots developed to achieve thorough ease of use for customers. As these products are light, you can carry and install them without using a crane. The manual guided teaching feature that allows users to directly move the arm by hands enables intuitive robot operation. Users can design teaching programs in a smartphone-like operation, using drag-and-drop operation on a tablet device they are familiar with. The robots, designed with an aim to create an appearance that coexists with humans, make workers feel safe. They are robots for a new age, equipped with a safety feature that stops itself when touched and maintenance-free, high reliability. In addition to the existing standard specifications, we have expanded our product range to include food specifications and the world's first explosion-proof collaborative robot that complies with international standards. These new additions will contribute to the automation of various fields that rely mainly on manual labor.

Targeting Expanding Robot Market

According to statistics by the International Federation of Robotics, the number of industrial robots in operation has increased year by year and is expected to continue to grow. FANUC develops robots that can help solve issues faced by society and as measures to improve productivity of customers' factories and address decreases in working population and highly skilled workers.

TOPIC

The CRX series, light-weight collaborative robot won triple award: "Minister of Economy, Trade and Industry Award at the Ninth Robot Awards", "Nikkei Sangyo Shimbun Award in the 2020 Nikkei Superior Products and Services Awards" and "2020 the 63rd Nikkan Kogyo Shimbun Ten Great New Products Awards Main Prize."
"FANUC Robot R-2000*i*D/210FH," a product with cables integrated into its arm and featuring a good balance between design and function, won "2019 the 62nd Nikkan Kogyo Shimbun Ten Great New Products Awards Main Prize" and "Nikkei Sangyo Shimbun Award for Excellence in the 2019 Nikkei Superior Products and Services Awards."

ROBOMACHINE Business

- Products
  - ROBODRILLs (compact machining centers)
  - ROBOSHOTs (electric injection molding machines)
  - ROBOCUTs (wire electrical-discharge machine)

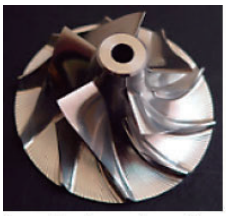
- Strengths
  - Products applied with CNCs and servos, FANUC's basic products
  - Top-level global market share of ROBODRILLs (compact machining centers) (FANUC estimate)
  - Top-level global market share of ROBOSHOTs (electric injection molding machines) (FANUC estimate)
  - HHigh performance, high operating rates, easy to use

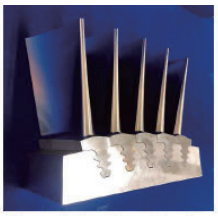
Business Overview

Products of the ROBOMACHINE business are comprised of machine tools or industrial machinery installed with FANUC's CNCs and servos. They are used for production in factories of customers. They are all highly compatible with FANUC robots. Factory automation is enhanced through the combination of ROBOMACHINEs and robots.
Customers can improve quality of their products and shorten the time it takes for machining by using FANUC's highly reliable, high-performance ROBOMACHINE products. The products will contribute to improved productivity of customers' factories.
Furthermore, a function to monitor the operational status of the entire factory in real time will enable designing of more precise production plans and improvement in operating rates (FIELD system Basic Package, ROBOSHOT-LINK*i*2, and ROBOCUT-LINK*i*).
ROBOSHOTs, ROBODRILLs, and ROBOCUTs became eligible for a subsidy for business expenses supporting promotion of advanced energy-saving investments, allocated in the FY2023 supplementary budgets in recognition of their energy-saving potential. Furthermore, they are eligible for a subsidy in 2024 for ESG lease promotion business for the establishment of a decarbonized society.

Value Created by ROBODRILLs

ROBODRILLs are compact machining centers. They are used for machining metal materials, such as iron and aluminum, with tools and for drilling holes.
The products have superior machining performance for their compactness and contribute to making production equipment smaller and saving energy. They improve production efficiency by thoroughly reducing redundancy in machines' operation, and achieve more stable machining through the use of thermal displacement compensation function. These features help improve machine customers' product quality and productivity.


Impeller for automotive superchargers


Aircraft turbine blades


Wristwatch bezel

Value Created by ROBOSHOTs

ROBOSHOTs are electric injection molding machines. They form melted plastics, etc. into shapes by casting them into metal molds. Many components used in daily lives, including mobile phone components, auto parts, and medical instruments, are made using injection molding machines.
FANUC's products can perform more precise and stable molding thanks to the highly-rigid and low-friction mechanism and the use of our excellent CNC and servo technology, and contribute to manufacturing of high value-added precision molded products. AI backflow monitor helps estimate the amount of wear on backflow prevention rings, allowing for replacement of components at optimum timing. This contributes to reducing molding defects and improving operating rates.

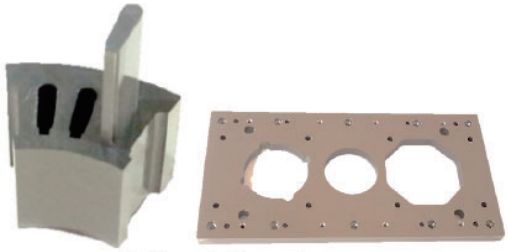

Auto headlight


Syringe

Value Created by ROBOCUTs

ROBOCUTs are wire electrical-discharge machine, which use discharge phenomena between wire electrodes and the workpiece to perform machining. They can perform machining on anything from thin boards to ultrahard materials, which are difficult to process for cutting tools, into complex shapes as long as the material is conductive, regardless of its hardness.

By achieving stable machining through the use of the AI thermal displacement compensation function, these products contribute to improving customers' product quality. The highly reliable automatic wire feeding function (AWF3) can automatically recover feeding when a wire is accidentally cut and disconnected during machining, thereby enabling unmanned operation for long periods. These features contribute to improving operating rates.



Mold parts for motor cores

TOPIC

In the latest model of the ROBOSHOT α-S*i*B Series, we have introduced a 21.5-inch-wide display screen (PANEL *i*H Pro), the largest of its kind in the industry, which enables simultaneous display via a unique divided screen, offering both superior operability and visibility. Furthermore, we have adopted a fully enclosed cover style for the injection unit, which is the only one of its kind in the industry, realizing safety, operability, and maintainability. In recognition of these innovations, we received the “51st Industrial Machinery Design Award IDEA: The Japan Society of Industrial Machinery Manufacturers (JSIM) Award.”

Sustainability Report 2024

Social

Social

FANUC contributes to the development of its customers' businesses and the manufacturing industry, by promoting the automation and robotization of customers' factories. In addition, our employees, who support FANUC's corporate activities, are also regarded as important stakeholders.
FANUC gives due consideration to people and society, while contributing to the creation of an affluent society as well as its sustainable development.

Policies

- FANUC Code of Conduct
- Human Rights Policy
- CSR Procurement Policy

Respect for Human Rights

Basic Approach

At FANUC, we respect the human rights of all persons involved in our business, based on the understanding that it is the basic principle of all activities, in accordance with our Human Rights Policy.

- Human Rights Policy

Laws and International Norms of Behavior

FANUC respects human rights as defined in international norms, such as the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights, and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and Respect for Children's Rights and Business Principles in accordance with the guiding principles on business and human rights.

Human Rights Due Diligence

FANUC Code of Conduct prohibits “discrimination based on race, beliefs, gender, social status, religion, nationality, age, mental or physical disability, sexual orientation, sexual identity, etc.”

- FANUC Code of Conduct

FANUC has evaluated and identified potential and actual human rights risks and implemented measures to avoid or reduce such human rights risks.
We will encourage our business partners and related parties not to infringe human rights if they are associated with actions that negatively impact human rights.
When it is clear that our business has caused a negative impact on human rights or has engaged in any violation of human rights, we will endeavor to implement remedies for them, and will establish a grievance system as necessary.

The following items are addressed as priority issues.

Prohibition of Discrimination

- Prohibition of discrimination based on gender, age, nationality, ethnicity, race, place of origin, religion, beliefs, disability, sexual orientation, sexual identity, etc.

Respect for the Rights of Workers

- Prohibition of all forms of harassment
  We have worked to foster awareness of employees by providing training, etc.
- Ensuring employee health and safety
  We have made organizational efforts through the Health and Safety Committee, etc.
- Prohibition of child labor and forced labor
  In executing an employment contract, we verify the age of the candidate employee against documents issued by public agencies, etc.
- Respect for the rights of foreign and migrant workers
- Respect for freedom of association and the right to collective bargaining
  Working conditions are determined through labor-management negotiation.
- Prevention of low-wage labor (labor less than the minimum wage and living wage)
  We have adopted a basic policy of not only following rules on minimum wages, but also paying wages that exceed those requirements.
- Prevention of excessive amounts of overtime
  We share the status of employees’ working hours each month at a meeting in which executives participate.
- Respect for freedom of expression

Respect for the Rights of Vulnerable People

- Respect for the rights of women, children, persons with disabilities, minorities, and the elderly
  We have developed a comfortable working environment.
- Respect for the rights of local and indigenous peoples related to our business
- Avoiding complicity in conflicts and human rights violations relating to mineral procurement

Protection of Privacy and Personal Information

- Respecting the privacy of customers, employees, and other parties concerned, and protecting personal information

We respect privacy and protect personal information of customers, employees and other related persons by developing the Acceptable Use Policy of IT service, the Information Security Management Regulation, and the Personal Information Management Rules , and providing training programs.

Promotion Framework / Initiatives

A helpdesk has been established in both the Human Resources Division and the labor union to provide advice across the entire company. A helpdesk has also been set up in the Welfare Department of the Human Resources Division, led by the executive employees in charge (one male and one female). This helpdesk offers advice on all forms of human rights-related harassment, including sexual harassment, maternity harassment (harassment related to pregnancy, childbirth, child-care leave, etc.), and power harassment. The existence of this helpdesk is being widely advertised through the company-wide portal site. We have established a framework to respond to inquiries from employees and offer advice.
We will develop environment approachable for persons seeking advice by setting up an external help desk for harassment in October 2023 so that the persons can select a help desk.

In these consultations, due attention is given to the protection of privacy, and consideration is given to ensure that anyone seeking advice and anyone who is involved in confirmation of the facts of the matter are not subjected to unfavorable treatment. Based on confirmation of the facts, the consultations are handled by the parties concerned, taking confidentiality into account, and appropriate measures are taken. In this way, we strive to improve the workplace environment to make it a more comfortable place to work.

Harassment Prevention Training for All Employees

Harassment in the workplace is not only an act that unjustly harms the dignity and character of the individual, but it is also an absolutely unforgivable act that damages the workplace environment.
FANUC strives to prevent harassment, with the aim of achieving workplace environments in which all employees can maintain good mental and physical health and work energetically with peace of mind.

Our efforts to establish workplace environments that will not give rise to harassment include harassment prevention training on an e-Learning platform, group harassment-prevention training for executive employees, company-wide preventive measures, and fostering understanding of diversity.
We post examples of harassment and the company’s responses on the company-wide portal site to thoroughly raise awareness among employees.

Communication

- We thoroughly inform all employees and our group companies of our human rights policies.
- Communicate with relevant stakeholders on measures against risks and impacts on human rights.
- We will appropriately disclose and report information on our Human Rights Policy and related initiatives.

With Our Customers

Basic Approach

The three philosophies of FANUC are comprised of “one FANUC”, “Reliable, Predictable, Easy to Repair”, and “Service First”. FANUC contributes to the manufacturing industry around the world by conforming to, and practicing these philosophies.
In development, FANUC focuses on ensuring its customers` safety and enhancing their productivity.
FANUC strives to enhance the quality, safety, and reliability of its products, and has established a quality management system toward this end.
FANUC provides lifetime maintenance to its products for as long as they are used by customers, through more than 260 service locations throughout the world. In addition, FANUC strives to improve customer satisfaction through the provision of training courses at FANUC ACADEMY and support at the time of product installation.

Improving Customer Productivity

FANUC pursues the automation and robotization of our customers' factories as well as their high efficiency. FANUC has realized a high operating rates by analyzing failure information regarding our products, and conducting ongoing research and development to enhance reliability.

FA Business

ANUC provides highly reliable CNCs and servos, which are used in a wide range of machinery, including machine tools. In addition to improving ease of use for machinery manufacturers, we have also achieved increased productivity through the integration of CNC and digital technologies, and space-saving through miniaturization.
In addition, we aim to improving the quality of end users' products by utilizing a wealth of control technology for high-quality machining. The manufacturing of a variety of industrial products using machine tools equipped with FANUC's CNCs and servos contributes to an efficient society, including the manufacturing industry.

Developing a simulation function	The development of CNC simulators and CNC GUIDE has made it possible to provide education on machining programming, among other topics, even in the absence of actual machine tools. This leads to the improvement of educational efficiency at training sites in the manufacturing industry, as well as a reduction in the required number of units of training machinery and equipment, thereby helping to reduce resources. In addition, predicting the machining results before the actual machining through the Digital Twin of CNC enables the detection of errors in machining programs and the optimization of machining conditions, which leads to the reduction of defects caused by machining errors in the actual machining. This reduction enables cost cutting as a result of curbed power consumption at the time of performance of relevant tasks (such as regular disposal of cutting chips) and machining, because it reduces the amount of cutting chips and coolant discharged.
Developing customizable functions	Since the structures and functions of the machine tools provided by machine tool builders, who are our customers, differ, the required operating screens and control functions also vary. The development of functions allowing customers to easily customize tasks, such as designing displays and controlling signals, enables each customer to provide operators with operability suited to their own machines.
Servo learning oscillation	The biggest obstacle to automating metal processing is that long chips become entangled in the workpiece or tools during turning or drilling. In addition, such long chips are difficult to discard and easily damage tools and worked surfaces. This function solves those issues by shredding chips during turning, drilling, or threading.
Fast cycle-time technology	This is a group of functions that reduce machining time. Through optimization of the actual machining operations of the machines as well as a reduction in non-machining time, the overall machining time is shortened and the operating rates of the machine productivity is improved.
SERVO GUIDE, AI servo tuning	We provide our customers, manufacturers of machinery, with support tools to easily realize high-level tuning of parameters to control the servo motor. The inclusion of an AI-based tuning support function improves the machining performance of machine tools.
AI servo monitor	By using FANUC CNC and servo data, signs of malfunctioning spindle axes and feed axes of machine tools can be detected without a separately installed sensor. The AI servo monitor detects changes such as damage to spindle axes and feed shafts as anomalies, preventing sudden malfunctioning of machine tools and contributing to stabilization of production and maintenance plans.
***i*HMI / *i*HMI2**	***i*HMI provides a user interface that simplifies the operations of the operator who is the actual user of the machine tool.
Identification and improvement of operation in a whole factory	With the FIELD system Basic Package , it is possible to identify machining processes that may constitute bottlenecks in the production line, by knowing the operational status of the machine tools installed in the factory. This facilitates process improvement.
Fine surface technology	This CNC and servo control technology realizes high-quality machining. This technology can reduce the quantity of work in subsequent processes, such as polishing the machined surface, and enables reduced friction in components used in the manufacturing of automobile parts. This results in enhanced automobile quietness, and solves problems such as noise.
Failure diagnosis function Preventive maintenance function	The failure diagnosis function provides guidance when warnings and alarms are issued, which indicates the cause along with countermeasures, thereby shortening recovery time, as well as a preventive maintenance function that detects signs of failure, thus reducing machine downtime.
Improving spindle motor output	By molding the stator with highly thermal conductive resin to improve cooling performance, the output of the spindle motor can be increased without changing its size, thus contributing to the improvement of the machining performance of machine tools.

Laser-related products	CNC and highly reliable lasers that have highly synchronous connections between robot axis control and laser output commands enable pinpoint laser irradiation, for the realization of machining with an exceptionally high degree of precision. Further, the combined application of the many laser machining functions that we have built up over the years, such as laser-power control that controls laser output according to machining speed, dramatically improves the speed, precision, and quality of machining and ease of use and raises our customers' work efficiency.

Awards and Topics Related to FA Business

Awards on FA Business

The Main Prize of the 67th Nikkan Kogyo Shimbun Best Ten New Products Awards (2023)
FANUC α*i*-D series SERVO

The Main Prize of the 43rd Japan Society for Precision Engineering (JSPE) Technology Award (2023)
FANUC CNC Digital Twin (Project title: High-speed simulator for numerical control devices that takes into account the dynamic characteristics of each axis to realize a high-precision digital twin of machine tools)

ROBOT Business

Robots which utilize the basic technologies of CNCs and servos relieve workers from dangerous, dirty, and difficult jobs by performing tasks that were previously handled by humans. At the same time, robots revolutionize work styles, such as by reducing work hours and eliminating night shifts. Through the development of intelligent robots using visual sensors and force sensors, the areas in which robots can be used are expected to expand.
In addition to automating production lines and enhancing efficiency, the utilization of robots improves and stabilizes product quality, as they can continue consistent production over long periods.

Saving space	The Robot R-2000*i*D, which is frequently used in spot welding and handling applications, has a footprint that is 23% smaller than those of conventional models. Our wide range of models can be mounted in a variety of configurations, including on shelves, walls, and ceilings, and save space by optimizing the factory layout. In addition, we have developed a new robot controller, the R-50*i*A, which has a 20% smaller footprint than previous models (for B-cabinets), making it more space-efficient.
Reducing robot cycle time	FANUC has acquired a patent for the world's first practical learning robot. For example, in a conventional car body welding line, the utilization of 30 robots reduced cycle time by 10.2% after learning.
Improving cost efficiency	An automatic guided vehicle (AGV) equipped with a collaborative robot can move autonomously, allowing a single robot to work at multiple locations, and improves the operating rates of the robot in processes with long cycle times.
Automation system design support tool	The use of ROBOGUIDE, a software that automatically calculates the optimal layout of machines and robots, can reduce the time for trial and error required to design an automation system. Optimizing the operating program using ROBOGUIDE reduces cycle time.
Reducing downtime	ZDT (Zero Down Time) is a "predictable" function that alerts users before failure and improves productivity by reducing the downtime in factories. ZDT is connected to more than 35,000 robots around the world, and has prevented more than 2,000 downtime cases.
Remote monitoring of operation	A robot's teach pendant screen can be viewed from a remote PC via a network. Accordingly, the operating conditions of many robots can be conveniently checked from the office, eliminating the need to make rounds of the factory to inspect the operating conditions of each robot.
Software provision platforms	With the collaborative robot CRX, we have established a platform in which customers can download the latest software from our website and update it as needed by themselves, eliminating the need for our service personnel to attend customers' factories to set it up. This enables our customers to operate their machine tools with the up-to-date software at all times.

System development support	We have developed the new robot controller R-50iA, which helps reduce start-up time and costs through a variety of interfaces, including PYTHON*, VISUAL STUDIO CODE**, soft PLC, ROS1 / ROS2, and PLC motion. * Python is a registered trademark of the Python Software Foundation. ** Visual Studio Code is a trademark of Microsoft Corporation.
Reducing equipment costs	The 7-axis Robot P-1000*i*A, used for painting automobile bodies, contributes to drastically reducing the size of the paint booth compared to the use of conventional 6-axis robots. It is possible to greatly reduce initial costs when a paint booth is built as well as running costs such as air-conditioning.
Remote maintenance	With the development of the new R-50*i*A robot controller, FANUC service personnel can now provide remote maintenance support without having to visit the customer's factory, simply by connecting the customer's smartphone to the robot controller. This also helps to ensure rapid robot recovery in the event of an emergency.

Awards on ROBOT Business

The 70th (2023) Okochi Award : Okochi Memorial Foundation Okochi Memorial Production Prize

FANUC Robot M-2000*i*A

Triple award winner (2022)— The Nikkei Business Daily Awards of the 2022 Nikkei Superior Products and Services Awards/ The Main Prize of the 2022(65th) Nikkan Kogyo Shimbun Best Ten New Products Awards/ The GOOD DESIGN BEST 100 of the GOOD DESIGN AWARD 2022

FANUC Robot M-1000*i*A

Winner of the President's Award (2021) : 10th Technology Management and Innovation Awards, Japan Techno-Economics Society

Triple award winner (2020) : Minister of Economy, Trade and Industry Award at the Ninth Robot Awards / The Nikkei Business Daily Awards of the 2020 Nikkei Superior Products and Services Award/ The Main Prize of the 2020 (63rd) Nikkan Kogyo Shimbun Best Ten New Products Awards

FANUC Robot CRX-10*i*A

2019 Winner of double awards (2019): Outstanding Performance Award (Nikkei Sangyo Shimbun Award) of the Nihon Keizai Shimbun Superior Products and Service Award of 2019/ Grand Prix of the 62nd Nikkan Kogyo Shimbun Top Ten New Products Award of 2019

FANUC Robot R-2000*i*D/210FH

Winner of double awards (2018): Minister of Economy, Trade and Industry Award and Minister of Internal Affairs and Communications Award at the Eighth Robot Awards

ZDT (Zero Down Time)

ROBOMACHINE Business

ROBOMACHINE Business provides three product groups, consisting of ROBODRILLs (compact machining center), ROBOSHOTs (electric injection molding machine), and ROBOCUTs (wire electrical-discharge machine), which utilize the basic technologies for CNCs and servos. All of these product groups boast high performance and high operating rates, and help our customers adopt IoT in their factories.

Saving space	Compact ROBODRILLs with high machining performance provides the benefits of both saving factory space and increasing flexibility in terms of factory layout.
Reducing machining time	ROBODRILLs shorten cycle time and achieve high productivity by thoroughly reducing idle time by executing tool changes and table positioning operations concurrently. In addition, we are proactively expanding compatibility with new machining methods using special tools.
AI backflow monitor	ROBOSHOTs leverage AI to evaluate and predict wear on expendable parts (backflow prevention ring), and conduct “predictable” preventive maintenance. This makes visual inspections, which is the conventional way to confirm wear, unnecessary, thus reducing the workload.
Multi-functionalizing standard models	A second injection unit was developed for ROBOSHOTs. With this unit, molding of two types of resin materials with different functional requirements is made possible with in a single mold achieves high-value-added molding with less man-hours in the assembly process.
AI thermal displacement compensation function	Fluctuations in cutting accuracy caused by changes in the temperature of ROBOCUTs are predicted and controlled using AI technology. As a result, compensation accuracy improved by roughly 30% compared with the conventional models.
High reliable auto wire feeding (AWF3)	The ROBOCUTs features highly reliable automatic wire feeding that can automatically recover feeding when a wire is accidentally cut and disconnected, thereby enabling unmanned operation for long periods.
Job interruption function	In ROBOCUTs, we have developed a function that allows the user to interrupt the current machining operation to perform another one with a higher priority, if necessary during machining, and easily continue the original machining after the job is finished. This enables flexible operation of the machine and improves the productivity of our customers.
ROBODRILL-LINK*i* ROBOSHOT-LINK*i*2 ROBOCUT-LINK*i*	Monitors the operating status of the entire factory in real- time and supports the early detection of errors for quick recovery, contributing to improvements in operating rates of factory equipment. ROBOSHOT-LINK*i*2 enables significant increases in the number of connectable injection molding machines and in the quantity of data stored. It also makes it possible to view the system from mobile devices such as tablets. In addition, the periodic inspection and testing function provides comprehensive support for everything from inspection scheduling to work recording.
Robot Package of ROBOMACHINE	Our automation introduction packages, which combine ROBOMACHINE and ROBOT products, reduce the technical roadblocks involved in building robot systems. Simple installation, simple settings, and simple operation significantly reduce man-hours in the design process and start-up time. • ROBODRIL Robot Package Support automation of machining systems • ROBOSHOT Robot Package Support automation of injection molding systems • ROBOCUT Robot Package Support automation of wire electrical-discharge systems
Linkage with ROBOSHOTs flow analysis software	By linking with the ROBOSHOTs flow analysis software, users can seamlessly apply the molding conditions examined in the flow analysis during mold design to ROBOSHOTs. This streamlines the process of establishing the initial molding conditions, enhancing efficiency and productivity.

Awards on ROBOMACHINE Business

64th Nikkan Kogyo Shimbun Ten Great New Products Awards Main Prize (2021)
ROBOCUT α-C*i*C Series

51st Industrial Machinery Design Award IDEA: The Japan Society of Industrial Machinery Manufacturers (JSIM) Award (2021)
Display Unit PANEL *i*H Pro for ROBOSHOT α-S*i*B Series

66th Okochi Memorial Foundation Okochi Memorial Production Prize (2019)
ROBOSHOT

28th Japan Society of Polymer Processing Aoki Katashi Innovation Award (2017)
Movement Detection Technology and Injection Volume Stabilization Technology for a Backflow Prevention Ring

5th Japan Society of Polymer Processing Aoki Katashi Innovation Award (1994)
Development of AI Pressure Tracking Control for a Fully Electric Injection Molding Machine

Energy-efficient Products/Waste Reduction

Energy-efficient Products

FANUC will continue to make energy-efficient products, which will contribute to conserve energy in our customers' factories.

Development of large-capacity servo motors	We have developed a high-precision, high-efficiency, large-capacity servo motor fully utilizing our advanced digital control system. In the field of industrial machines, including electric injection molding machines, which require tremendous power, we have realized energy saving by introducing this large-capacity servo motor in place of hydraulic pressure.
Adoption of power supply regeneration system	In the servo amplifier, we use a power supply regeneration system that returns energy to the power supply when the motor decelerates. This effective use of the power supply leads to energy savings. When mounted on a ROBODRILL, it achieves a reduction in energy consumption by approximately 35% compared with the resistance-regeneration method. Furthermore, the adoption of new power devices has continuously reduced energy loss of the servo amplifier. It is reduced by maximum 35% compared to that in 1995.
Provision of the latest servo system	The newly developed α*i*-D series SERVO system has reduced loss of the entire servo system by 10% compared to the conventional products by reducing copper loss and iron loss of motors and AC reactors by adopting the above amplifier.
Power consumption monitoring function	Through the power-consumption-monitoring function, we have made it possible to monitor the amount of power consumed by our CNC systems, enabling the efficient adjustment of the cycle time. In addition, CO_2 emissions can also be displayed. By using the energy-saving level-selection function, we have made it possible to choose the type of operation: one that prioritizes cycle time and one that prioritizes power consumption. When there are differences in cycle times in the production line, in case fast processing is not necessary, choosing the power consumption priority operation contributes to energy savings for the entire factory. In addition, robots can also display power consumption in real time on the teaching operation panel using a power consumption monitor.
Fast cycle-time technology	This series of functions reduces cycle time. Reducing operating time contributes to reductions of energy consumption by peripheral equipment, such as a coolant pump.
Averaging the load of power demand	Night operation using robots disperses peak power and curbs power consumption.
Reducing CO_2 emissions by reducing weight	The design of the robot mechanical arms with lighter weight also reduces power consumption. For the robots with a payload of 165 kg, the Robot S-430*i*W in 1997 weighed 1,300kg while the Robot R-2000*i*C/165F in 2013 is lighter with weight of 1,190kg. In addition, the collaborative robot CRX has a robot mass of 40kg with a payload of 10kg, which is considerably lighter than the robot mass of 150kg common to robots in the same class thus far, and reduces power consumption. Even the LR-10*i*A/10 fully enclosed handling robots are more than 1/3 lighter than conventional robots with the same 10kg payload, and consume 30% to 40% less power.
Optimal operating program	By optimizing the operating program with ROBOGUIDE, power consumption is reduced and the lifetime of the reducer is extended to reduce running costs.
Efficient robot utilization	Use of an autonomously moving, Automatic Guided Vehicle (AGV) with collaborative robots allows a single robot to work in multiple locations, improving the efficiency of robots. This reduces standby power, compared with installing multiple robots. In addition, the latest model of the collaborative robot CRX has a very light robot mass of 40kg, and the AGV can also be made compact. Furthermore, the CRX can be moved on a handcart instead of on an AGV, making it possible to move the robot to the place where and when it is needed.
Instruction operation panel backlight automatically turns off	Reduces power consumption by automatically turning off the backlight of the LCD screen on the robot's teaching operation panel when no operation is performed for a certain period of time.
Energy-saving design	We have developed a new type of heavy payload robot, M-1000*i*A, with a serial link mechanism that is compact and has a wide motion range. Using the latest structural analysis, the M-1000*i*A has the necessary strength and rigidity while making extensive use of curved surfaces, at the same time, saving energy through the use of arms designed to be lightweight and power regeneration that reuses the robot's deceleration energy. In addition, we have developed the R-50*i*A, a new robot controller with an eco-friendly, energy-saving design, which reduces power consumption through the use of low-power fans, amplifiers with low-loss power elements, and highly efficient brake control.

Highly reliable automatic wire feeding system (AWF3)	ROBOCUT is capable of unmanned operation for long periods, thanks to the highly reliable automatic wire feeding system AWF3, which can automatically recover feeding even when a wire is accidentally cut and disconnected. Stable night-time machine operation disperses peak power usage and curbs power consumption.
Discharge control *i*Pulse3	With ROBOCUTs, our newly developed discharge control *i*Pulse3 has reduced the processing time and achieved a reduction in power consumption. In addition, power consumption is reduced by inverter control of the pump and cooler, power regeneration of the discharge circuit, and reduction of standby power for various devices.
Electrification of peripheral equipment	With the additional axis option for ROBOSHOT, peripheral equipment that was previously driven by hydraulic equipment can be electrified, saving energy.
Heat insulation cover	Covering heaters of injection cylinders of ROBOSHOTs with heat insulation cover increases heat insulation effect and reduces power consumption.
Plasticization energy monitor	By visualizing the breakdown of the energy consumed in the plasticization process (melting of the resin) and the energy loss due to heat dissipation, it supports the adjustment of optimal molding conditions that reduce energy consumption.
Energy-saving functions	The ROBODRILL's sleep function reduces power consumption by turning off the servo motor, stopping the coolant and lubrication pumps while the machine is idle. Furthermore, the peripheral device and mist collector control functions make it easy to extend the same control to other devices, saving energy for the entire system.

Awards and Topics on Energy Saving

Certified as eligible for a subsidy under the ESG Leasing Promotion Project for the Construction of a Decarbonized Society (2024)

ROBODRILL α-D*i*B Plus, α-D*i*B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, α-S*i*B Series
ROBOCUT α-C800*i*B, α-C*i*C Series

Certified as eligible for a subsidy under the Energy Conservation Investment Promotion Support Project (2023)

ROBODRILL α-D*i*B Plus, α-D*i*B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, α-S*i*B Series
ROBOCUT α-C800*i*B, α-C*i*C Series

Eligible for a subsidy in 2023 for ESG lease promotion business for the establishment of a decarbonized society (2022)

ROBODRILL α-D*i*B Plus, α-B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, α-S*i*B Series
ROBOCUT α-C800*i*B, α-C*i*C Series

ROBOSHOTs and ROBODRILLs became eligible for a subsidy for business expenses supporting promotion of advanced energy-saving investments, allocated in the FY2022 supplementary budgets in recognition of their energy-saving potential. (2022)

ROBODRILL α-D*i*B Plus, α-D*i*B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, α-S*i*B Series

Eligible for a subsidy in 2022 for ESG lease promotion business for the establishment of a decarbonized society (2022)

ROBOSHOT α-S*i*A, α-S*i*B Series

ROBODRILLs and ROBOSHOTs became eligible for a subsidy for business expenses supporting promotion of advanced energy-saving investments, allocated in the fiscal 2021 supplementary budgets in recognition of their energy-saving potential. (2021)

ROBODRILL α-D*i*B Plus, α-D*i*B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, B Series

ROBODRILLs and ROBOSHOTs became eligible for a subsidy for business expenses supporting businesses rationalizing energy use in production equipment, allocated in the fiscal 2019 supplementary budgets in recognition of their energy saving potential. (2020)

ROBODRILL α-D*i*B, α-D*i*B$_{ADV}$ Series
ROBOSHOT α-S*i*A Series

Approved for subsidies for the introduction of energy-saving equipment for local factories and small and medium-sized enterprises (2014)

ROBOCUT α-C*i*A Series

Prize of the Director General of Agency of the Natural Resources and Energy, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (2003)

For our large-capacity servo system with a power regeneration feature and precision digital control and for our large-size AC Servo Motor α*i* Series

The Minister Award of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1999)

Digital servo system using phase control regeneration and cycle time reduction, AC Servo Motor α Series

The Minister Award of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1998)

For our wire-cut electric discharge machines equipped with a high-speed automatic wire feeding mechanism and thick plate tracking control
ROBOCUT α Series

The Minister Awards of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1995)

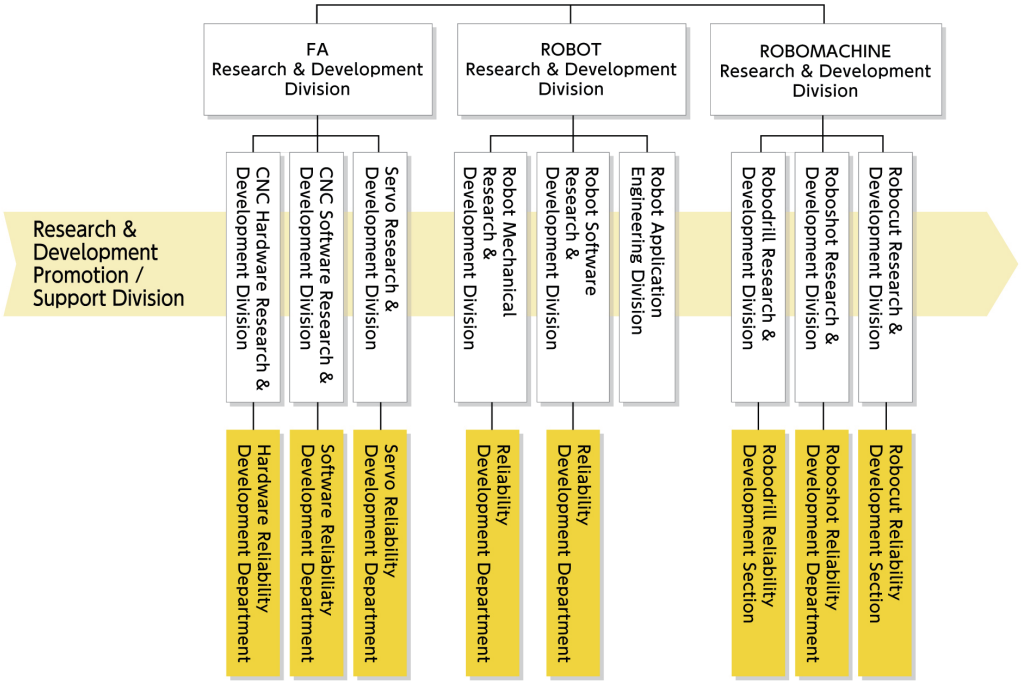
ROBOSHOT Series

Waste Reduction and Effective Utilization of Resources in Our Customers' Factories

FANUC's products also contribute to waste reduction and the effective utilization of resources.
Resources and Waste

Framework to Promote Product Safety and Quality

FANUC promotes activities to improve quality in all processes, from development and design of products to product quality buildups and after-sales services following manufacturing and shipment, in an effort to enhance the safety, quality, and reliability of its products. In order to ensure product safety, we conduct risk assessments at the design stage to identify sources of danger, evaluate and reduce risk, and confirm effectiveness. We also conduct risk assessments when a problem occurs, and evaluate the magnitude of the risk based on the severity of the hazard and the frequency of occurrence, and determine the appropriate response. We believe that product quality and reliability are built in at the development stage, and so we incorporate verification and validation, including reviews and reliability assessments, into the development process. In addition, in order to achieve rapid problem resolution and recurrence prevention, the Research & Development Divisions are responsible for achieving high reliability.
To ensure that these activities are effectively implemented across all of our products, we have established the Research & Development Promotion / Support Division that is responsible for promoting and supporting the development of all products. In addition, a section devoted to reliability development for each product has been established in each Research & Development Division. We also share information on quality, reliability, technology, security, etc. not only within each division but also through various regular meetings across divisions, and work to improve quality and reliability.



ISO9001

FANUC strives to ensure customer satisfaction, compliance with laws and regulations, and the safety and quality of its products through a quality management system based on ISO9001. We also review and evaluate the results of quality management system activities, and plan and implement internal quality audits to verify conformity with ISO9001, assess effectiveness, and make improvements.

ISO9001 Certification Rate (based on production volume)

Domestic	100%
Overseas	100%

It is essential to guarantee the impartiality and fairness of internal quality audits. To reinforce this aspect, we have established an Internal Quality Audit Committee that reports directly to the Representative Director, President and CEO. The Internal Quality Audit Committee is responsible for assessing compliance with applicable laws and regulations, identifying potential issues that could lead to quality misconduct or fraud, and reviewing improvement proposals. Furthermore, the committee assesses the effectiveness of internal quality audits and presents its findings to the Representative Director, President and CEO, as well as to relevant divisions. In addition to following the instructions of the Representative Director, President and CEO, the relevant divisions also consider improvement proposals and review rules on a voluntary basis, based on the information provided by the Internal Quality Audit Committee.

“Visualization” of Quality and Reliability

The status of quality and reliability in all processes, from product design to manufacturing and after-sales services, is monitored in order to promptly respond to defects. We collect data from our after-sales services, analyze it, identify issues, and give feedback to our production divisions and Research & Development Divisions. These activities improve our products’ quality and reliability.

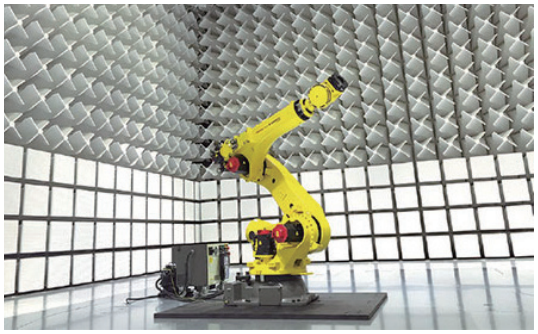
Reliability Development Technology

We promote the development of a framework to design and manufacture highly reliable products, as well as sharing of knowledge, in order to enhance the reliability development ability of our researchers.
The Research & Development Promotion / Support Division works with members of the reliability development departments in each Research & Development Division to regularly review methods to improve reliability-related issues and proceed with standardizing reliability development methodologies.
In addition, the Defect Management Procedures have been established to systematize rules regarding response procedures when defects arise, and Incident and Vulnerability Handling Guidelines have been established to set out the procedures for responding quickly to security incidents and vulnerabilities in products.
All defects that arise are registered in a management system, which centrally manages the entire range of processes, from the investigation of the cause to the measures taken. This allows us to “visualize” the progress of the response, and prevent any oversights. The knowledge and lessons of the management system are utilized companywide, and have proven to be effective in terms of quality buildup and quality improvement measures, prevention of the occurrence and recurrence of defects, and the education of young engineers. Furthermore, the Reliability Evaluation Building has an area featuring lessons learned from past defects, where actually used products with quality and performance are displayed. This area is used to educate research engineers by encouraging them to learn from past failures.

Reliability Evaluation Technology

As FANUC products are used in manufacturing sites, they are exposed to extremely harsh environments. In order to ensure that our products can operate stably for long periods of time under these conditions, while contributing to minimizing downtime in our customers' factories, we are promoting the standardization of evaluation tests by conducting them in a variety of surroundings.
The Reliability Evaluation Building, which opened in 2016, has a total floor area of approximately 22,679 square meters (103 meters wide × 198 meters deep), and houses a variety of equipment for thorough reliability verification.
This facility is equipped with dedicated test rooms, such as an anechoic chamber, an EMS (electromagnetic susceptibility) test room, a vibration test room, a mist test room, a variable temperature room, a variable humidity room, a capability limit test room, a noise measurement room, a submergence test room, a clean room, and a precision measurement room. In this facility, a variety of tests are performed while taking into account variations in data under various conditions, including the accelerated life test to evaluate long-term reliability.

Reliability Evaluation Building



Anechoic chamber

Mist test room

Ensuring Customer Safety

FANUC contributes to the improvement of safety and the minimization of downtime at its customers' factories. To this end, it is essential to enhance product safety in order to protect operators from danger. FANUC engages in research and development to realize a higher level of safety, and its FA, ROBOT, and ROBOMACHINE products comply with the relevant safety standards.

Complying with safety standards	We fully meet safety standards, such as ISO and IEC, and have been certified by certification bodies. The ROBOSHOT α-S*i*B series meets the newly established safety requirements for injection molding machines (ISO20430, JIS B 6711). This will ensure the safety of operators and molding worksites in accordance with the new safety standards.
Dual Check Safety (DCS)	The CNC complies with safety standards (IEC61508 SIL 3*, IEC62061 maximum SIL 3*, ISO13849-1 PLe*) and has been certified by certification bodies. (*SIL 2, PL d applies if spindle motor is included.) Safety-related signals are duplicated for comparative monitoring. In the event of a failure in one hardware safety circuit, the other detects the failure, thus maintaining the safety of the system.
Custom Programmable Machine Controller (PMC) safety function	In our ROBODRILL, the customer or system integrator can apply the abovementioned DCS to the control of peripheral equipment that is additionally installed on the ROBODRILL. This will make the separate safety circuits and control equipment unnecessary.
Malfunction prevention function	The design gives consideration to safety, such as by halting and issuing an alarm in the case of accidental operations by the operator. In the future, we will work on a feature that stops functions pertaining to hazardous and accidental operations, as well as one that prevents such choices.
Fully covered structure for injection units	The ROBOSHOT injection unit is fully covered to prevent accidental contact with the hot injection unit, which is heated by the heater.
Collaborative robots	Collaborative robots do not require a safety fence, because they securely stop operating when coming into contact with humans. These robots are used to assist in tasks alongside human workers, enabling operators to avoid heavy lifting, so that persons with less physical strength can perform tasks safely.
Smooth stop function	This function stops robots on a procedure that has been confirmed to be safe in the shortest possible time, in case of any abnormality.
Brake error diagnosis function	If a failure occurs on a brake while the robot is in operation or at rest, the power of the brake may decrease, causing the robot's gravity axis to fall. This function provides early diagnoses of such brake malfunction, and notifies the user in advance.
Cyber security support	We have developed the new robot controller R-50*i*A, which is the world's first robot controller (according to our research) to have obtained international cyber security certification (IEC62443-1, IEC62443-2). It blocks cyber-attacks from external sources, allowing you to build a reliable robot system.

Product Design

In line with our "Simple & Smart" design policy and the human-centered design (HCD) concept, we create products that fulfill our users' requirements and greatly satisfy them, without being deficient or excessive. While complying with ISO, JIS, and local laws and regulations, we aim for designs that seriously take into consideration user-friendliness and safety. We are in the process of formulating related guidelines. Our new collaborative robot CRX, released in December 2019, gives the rough, rugged image of industrial robots a fresh new look. The clean, rounded lines of this novel design offer a soft external appearance that allows the operator to share space with the CRX comfortably.

Solutions for Decreases in the Workforce and Skilled Engineers

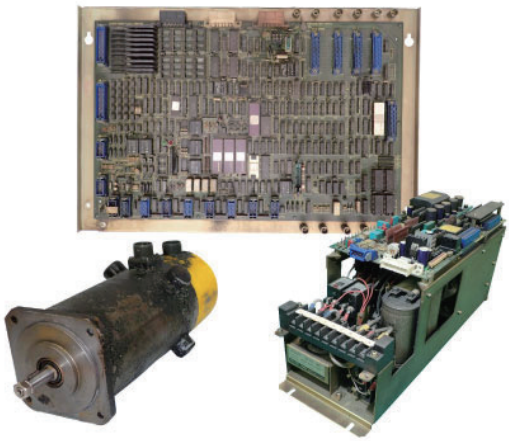
The number of workers in the manufacturing industry, as well as the number of skilled engineers is expected to decrease in the future. FANUC promotes labor saving through the automation and robotization of factories, in order to solve the problem.
In addition, if engineers cannot operate the machines properly, not only will productivity decline, but also the facility operating rates will decrease due to such failures, and the engineers themselves may be injured. We strive to solve this issues by developing user-friendly products.

Partial automation of work processes by collaborative robots	Collaborative robots do not require a safety fence, because they securely stop operating when coming into contact with humans. This enables the partial automation of work processes at manual labor production sites. Collaborative robots provide additional options for solving labor shortage.
Introduction of robots on machine tools	In order to reduce the technical roadblocks involved in building robot systems, we have packaged the basic elements required to connect CNCs and robots and support implementation. ・Systems to easily connect machine tools to robots and easily check operation status ・A function to enable robot control by CNC programming (G code command) and manual handles ・A function to automatically generate robot paths that do not interfere with machine tools ・A function to simplify the subsequent installation of robots on machine tools
Visual guidance screen	With ROBOCUT, functions such as a simple adjustment for adjusting machining parameters, which enables easy fine-tuning, are displayed on the guidance screen, to provide visual guidance on how to use the machines. We give attention to make them user-friendly even for unskilled operators.
Easy-to-use user interface (UI)	By making the UI of the teaching pendant used in the teaching of robots easier to use and adopting a tablet style for the pendant, we have made it easy even for unskilled workers to conduct operation and programming. The collaborative robot CRX has made the creation of teaching programs easier, enabling operators to use their hands to move the robot arms directly and control the robot easily even on first-time use. With the tablets now widely used, operators can create teaching programs by dragging and dropping icons, just as they would with a smartphone.
SERVO GUIDE, AI Servo Tuning	We provide machinery manufacturers with software to support the adjustment of parameters for servo motors and spindle motor control. The inclusion of an AI-based turning support function enables even unskilled engineers to easily perform high-level servo tuning.
CRX arc welding function	It is easy to handle the robot and replicate the welding techniques of experienced welders even for first-time users, thanks to Direct Teach, which lets you move the arm directly by hand, and the intuitive arc welding operation, through icons on a tablet. In addition, because the CRX is a cooperative robot, it can be easily introduced without safety fences.
CRX easy palletizing UI	With CRX, users can intuitively create programming for stacking patterns of cardboard boxes using the easy palletizing UI on the teaching tablet by dragging and dropping. Even customers who are new to handling robots can easily automate the palletizing and depalletizing of cardboard boxes.
Dual-screen simultaneous display	ROBOSHOT uses a 21.5-inch display, one of the largest in the injection molding machine industry, and our unique dual-screen simultaneous display for improved screen operability. The help display corresponding to each setting item allows even first-time ROBOSHOT operators to set up the screen without a manual. It is also possible to set intuitive operations using icons.
Smart programming	NC programs can be automatically created by only inputting the size of a shape and processing condition number in accordance with instructions on the screen with respect to the basic shapes such as a polygon, circle shape, track shape in addition to a keyway shape used for ROBOCUTs. It is also possible to set intuitive operations using icons.
Multilingual support	ROBOMACHINE promotes multilingual operation screens so that all customers around the world can comfortably operate the machine in their local language. For example, in India, the English interface has been supported until now, but this time, the Hindi language, which is used by many people in India, has been introduced into the ROBOCUT operation screen. (We will consider supporting ROBODRILL and ROBOSHOT in the future.) In addition, we are promoting multilingual support with the new robot controller R-50*i*A so that customers in various regions of the world can use the robot easily.
Deburring cycle	Deburring after hole processing on cylindrical surfaces is often done by hand because it is difficult to perform on the processing machine. This can lead to problems such as low productivity and a high incidence of workplace accidents. The deburring cycle of ROBODRILL makes it easy to perform deburring using intuitive commands. It saves labor, integrates processes, and also reduces workplace accidents.
Machining mode setting function 2	The machining mode setting function 2 of ROBODRILL enables even unskilled operators to easily achieve shorter cycle times, as well as improved contour accuracy and surface quality during machining.

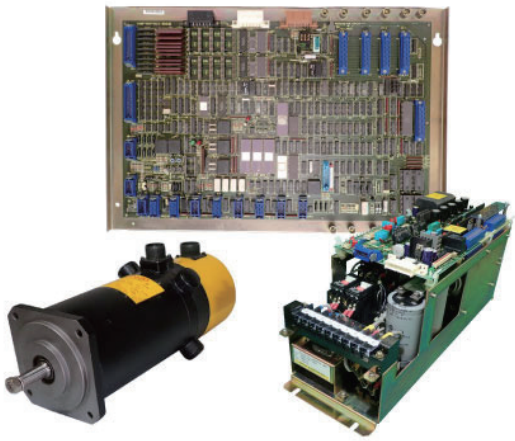
Lifetime Maintenance

FANUC provides lifetime maintenance for its products as long as they are used by customers, even for models that are no longer in production. Lifetime maintenance makes it unnecessary for our customers to renew their equipment due to discontinued maintenance service, thereby allowing them to use FANUC products at a low cost for several decades.
At our Repair Factory, we perform approximately 80,000 repairs per year in Japan, including products that were manufactured more than 40 years ago. We have a stock of over 3.5 million pieces of 19,000 types of repair parts, including old parts that are no longer in production, ready to repair used motors, PCBs, or units.
Even in cases where some parts run out of stock, the Repair Factory has a system for finding replacement substitutes or redesigning them. In addition, old manuals are also digitized as part of our efforts for lifetime maintenance.
Units which have broken down are cleaned in an automatic washing machine using robots or other means, and after drying them overnight with a drying furnace, they are repaired. Not only damaged parts, but also parts that are starting to deteriorate are replaced, to attain a quality in repair that is equal to a brand new unit.
We collect parts that have deteriorated but can still be regenerated and overhaul them for re-use, thus contributing to the reduction of waste as well.
The Repair Factory has performed over 2.3 million repairs thus far, and its know-how is utilized in domestic and overseas repairs, as well as being fed back to laboratories.

Example of repair for PCB, spindle motor and servo amplifier unit over 40 years ago.



Before repair



After repair

Providing Global Services

Based on the spirit of “Service First”, FANUC provides lifetime maintenance for its products for as long as they are used by customers, through more than 270 service locations supporting more than 100 countries throughout the world.
Service

Basic Approach

Based on our spirit of “Service First”, FANUC strives to improve customer satisfaction by providing prompt and careful services and lifetime maintenance.

Policy

Conforming to the spirit of “Service First”, FANUC provides lifetime maintenance to its products for as long as they are used by customers, through service locations near customers throughout the world.

Service First

Promotion Framework

Once a year, we hold the Global Service Conference, organized by the Representative Director, President and CEO, which is attended by top management of Group companies and service personnel from locations around the world, as well as key members from FANUC Headquarters.
From 2020 to 2022, due to the Covid-19 pandemic, we used online discussion boards to hold conferences, and just as in real conferences, participants share case studies and knowledge about topics like parts and technical information, maintenance tools, service training, and service DX through various working group activities to improve and strengthen our services.
In the 2023 Global Service Conference, we held a non-virtual meeting attended by a total of 454 participants with lively discussions at the Headquarters for the first time in four years.

Goals

We aim to improve customer satisfaction by providing better services. To this end, we make efforts to shorten the average waiting time for services, and increase the percentage of maintenance parts that can be delivered immediately on demand.

Initiatives

To Realize Mobile Services

More than 2,300 service personnel and support staff (all are FANUC Group employees) around the world handle phone calls, provide services at customer sites, and manage maintenance parts. Units replaced at the request of our customers are repaired at Repair Factories in 14 locations around the world to be reused. Using these units in subsequent maintenance services leads to waste reduction and the effective utilization of resources.
In our domestic services, we are striving to enhance mobility, primarily by having all field service personnel carry a mobile device, so that representatives can visit customer sites as quickly as possible, based on the current locations of all personnel.
To further reduce wait times, we do not divide the introductory training into groups by machine type for new hires after 2021. Instead, all new hires receive the same training.
Younger employees who joined the company before that time also receive cross-training, not just on the machines with which they are proficient. We focus on training multi-skilled service personnel who can handle all types of products including FA (CNC), LASER, ROBOT, and ROBOMACHINE, thereby enabling flexible response and efficient dispatch and shortening travel distance and time.
The realization of flexible services requires all types of maintenance parts that amount to an enormous quantity.
FANUC has a global parts warehouse in Japan to store maintenance parts for which there is extremely low demand. We also strive to visualize inventory around the world.
Even parts that are used extremely rarely are stored somewhere in our global service network, and by managing this information, we are able to provide parts in the shortest possible time. Inventory data is updated to provide parts as quickly as possible. In addition, we prepare an overall demand forecast for maintenance parts, in order to utilize the data to streamline the supply of parts.
Furthermore, we established additional core locations in Japan as part of our business continuity plan (BCP), to secure the continuity of our services. We have also ensured that we can continue providing lifetime maintenance by establishing call centers and parts warehouses in the two locations of Hino, Tokyo and Komaki, Aichi, as well as by installing in both of the locations and mirroring the servers that contain accumulated information, including past service data.
In addition, the Yamanashi (formerly Chuo), Mikawa (formerly Anjo) and Kokura Service Centers were relocated to new buildings, and these service centers, which have expanded floor space, began operations between 2023 and 2024. The parts warehouse within the service centers has also been expanded, and by increasing the parts inventory, the number of cases that can be handled in response to urgent requests from customers has increased.
Furthermore, we have also set up overhaul facilities at the above three locations, which were previously only available in Nagoya and Hino. This allows us to better respond to requests from customers for the collection and overhaul of various types of machinery and robots.

Nagoya Service Center

Hino Branch Office

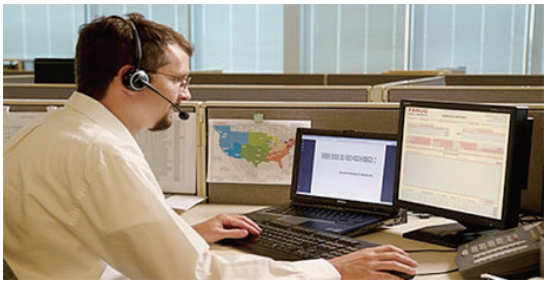
Parts Warehouse

Enhancing Our Service System

In our after-sales service, in addition to carrying out repairs in a short time, we are strengthening our efforts to implement preventive maintenance by detecting signs of trouble before breakdowns. We actively propose and sell AI Servo Monitor, which connects CNCs via a network and collects servo data to predict failures, and ZDT (Zero Downtime), which connects robots via a network and centrally manages information on mechanical parts, processes, system status, and maintenance timing to monitor information and perform preventive maintenance.
In addition, we are encouraging preventive maintenance in order to improve operating rates in our customers' factories. In our call centers, we accept inquiries regarding repairs in case of failures and parts sales.
We have established a toll-free line in Japan to respond to inquiries. Call centers use a dedicated reception software which are updated as needed, reflecting requests from service personnel and operators.
Similar software is used in our overseas offices tailored to the circumstances and characteristics of each country.
Key data from individual maintenance reports is shared among countries, and utilized primarily to improve reliability, and develop jigs and tools.
To accommodate the new normal era created by COVID-19, we are pursuing new types of services, such as remote diagnosis and online support, as a project for service DX.
Our first step was to launch FabriQR Contact, a contact service using 2D codes, in Japan in October 2020. We have also started operating overseas from April 2024.

Services in Japan

We accept calls until 5:10 p.m. on Saturdays for customers who operate their factories on weekends.
After long public holidays and other times when there is a heavy concentration of calls, all staff in each location, including veteran field engineers, handle calls, and calls are automatically forwarded from the call center to available lines at locations to prevent a fall in response rate.
We also provide the CS24 service (for a fee) to customers who request availability at night and on Sundays and holidays.
Some overseas offices have individual contracts with customers to provide maintenance services 24/7.
In addition, we provide a maintenance contracts after expiration of the warranty period. Customers who have signed the contract to prepare for any product failures after the warranty period expires, are entitled to repair services which are free of charge within the contract term for an unlimited number of times (some parts and supplies are excluded).



Membership Website

A membership website established in April 2015 provides downloads of electronic data for outline drawings to members free of charge. There are two types of membership, i.e., general membership open to the general public amounting to around 8,738 members, and customer membership limited to actual users of FANUC products currently consisting of around 11,365 members (as of July 1, 2024).
Customer membership website is a very convenient site where a customer can download materials including electronic manuals and purchase maintenance parts.
In December 2019, we added a chatbot function, launching a Q&A service regarding the membership website.
We have also begun responding to customer members' technical inquiries with the use of a chatbot function. We are engaged in initiatives to enhance convenience for customer members by regularly adding and updating Q&A content.
The membership website was updated to "MyFANUC" on the new platform in August 2023. The conventional maintenance service related functions have also been transferred to MyFANUC and can be used there in the same way as before. In addition, we have released E-Store that sells 10,000 parts, the number of which was increased from 150 to enhance convenience of the maintenance parts sales site. We will improve contents to provide going forward.

Membership Website (in Japanese)

*Japanese site services are available only in Japan.

Customer Satisfaction Surveys

FANUC America, FANUC Europe, and other overseas group companies conduct regular customer satisfaction surveys. In Japan, we conduct anonymous questionnaire surveys of customers that we attend on site, in order to reflect customer feedback in improvements to our services.
In a customer satisfaction survey conducted in Japan in 2023, we received a score of 4.48 out of 5, up from the previous year's average of 4.31. The score for the clarity of the instructions and help documents increased from 4.02 to 4.38. On the other hand, the score of 4.08 for the ease of reaching the call center has not improved. It appears that customers are dissatisfied not only with the time it takes to get through on the first call, but also with the time it takes to speak with an engineer. We will continue to review the number of engineers and how to respond more efficiently.

Support for Restoration from Natural Disaster

Many natural disasters occur in Japan every year, and we dispatch service personnel to respond according to the needs of our customers.
In 2022, there were no large natural disasters, but floods occurred in some regions. We visited those regions before restoration of power to make efforts to minimize our customers' machine downtime by promptly washing, drying, replacing parts and conducting level adjustment and replacing parts damaged due to earthquakes.
Overseas, FANUC India, FANUC Indonesia, FANUC Thailand, and FANUC South America have worked to restore operations as quickly as possible by arranging parts and providing repairs at repair shops in response to flooding in India, Indonesia, Thailand, and Brazil.
FANUC responds to disasters under our philosophies of “one FANUC”, “Reliable, Predictable, Easy to Repair”, and “Service First”.

Support for Customers

Technical Support for Our Customers

FANUC provides support to our customers per product, to enhance customer satisfaction.
In FA products, the Sales Engineering Department plays a central role in providing technical support and adjustments for installing CNCs at the design/production sites of machine tool builders, who are our customers, as well as support for building machining systems for laser oscillators and determining machining settings. Engineers are dispatched from research & development divisions as necessary to share the latest technical information and hold technical meetings to deal with new models designed by our customers.
For ROBOT and the ROBOMACHINE products, we also provide technical support for automating production lines of our customers.
In addition, for ROBOMACHINE products, we have established an environment to conduct remotely machining and molding tests without the need for customers to visit the company, as a way of providing technical support during the COVID-19 pandemic.

Efforts to Facilitate the Introduction of New Models

FANUC facilitates the introduction of new machine tool models at manufacturing sites. For machining programs using G code, which are primarily utilized in FANUC CNCs, the program of old models can be used as-is, without making changes. As such, machine tools equipped with FANUC CNCs can reuse the programs and settings of old models, thereby facilitating the introduction of new machine tools for our users.
Even during the introduction of new ROBOT and ROBOSHOT models, the programs for old robot models can be converted and reused. In ROBOSHOTs, various settings data and parameter files for molding conditions can be transferred to other models. Combined with our efforts for lifetime maintenance, we realize the long-term use of our products, and promote improvements in customer satisfaction and the effective utilization of resources.
Our collaborative robots do not require a safety fence and can be easily installed later without the need to re-design the existing production line layout.
The robot mechanical arms and controller of the new collaborative robot CRX are lightweight, enabling them to be carried by hand, eliminating the need for a crane for transportation and installation. In addition, while industrial machinery often uses a three-phase power supply, which is for commercial use, CRX is compatible with AC100V/200V single-phase power supply, so it can be plugged into a normal power socket.

FANUC ACADEMY

Overview

FANUC has been focusing its energy on training our customers, as well as domestic and overseas service personnel since its foundation, in order to promote automation and robotization in our customers' factories around the world.
In 1982, FANUC established the FANUC Technical Training Center and over 100,000 participants have graduated to date.
During the one-year period from April 2018 to March 2019, a total of 5,186 trainees attended from Japan and overseas.
In March 2018, FANUC established FANUC ACADEMY, an educational facility that expanded the size and content of the Center. FANUC ACADEMY offers training programs for all products, from CNCs, Servos, and Lasers, Robots, Robomachines, and the IoT products, with training lasting from two days to three weeks, depending on the needs of the participants.
In 2020, the number of trainees decreased due to the spread of COVID-19 and the measures we took to prevent infection, but we responded to the demand for education by enhancing eACADEMY, a new online education system with live and on-demand seminars through FY2021.
During the two-year period from April 2021 to the end of March 2023 as a result of thorough countermeasures to prevent the spread of COVID-19 such as limiting the number of participants in face-to-face seminars and holding only those seminars considered highly necessary, the number of face-to-face Academy seminar participants continued to decline, but we had 6,761 participants. Live seminars and on-demand seminars continued to accept participants.
In addition, FANUC ACADEMY is also working with Training Departments established in the United States, Europe, and China to build a system for conducting training based on FANUC's global standard to customers around the globe.
We are engaged in efforts to provide a high level of customer service while also educating our trainers and service engineers around the world on the latest products through live seminars.

FANUC participates in the Consortium of Human Education for Future Robot System Integration (CHERSI), which will develop human resources specialized in robotics through industry-academia collaboration, and is actively engaged in robotics human resource development activities by providing lectures at FANUC AMADEMY to teachers from technical high schools.

Click here to see the initiatives taken at FANUC ACADEMY in response to COVID-19.

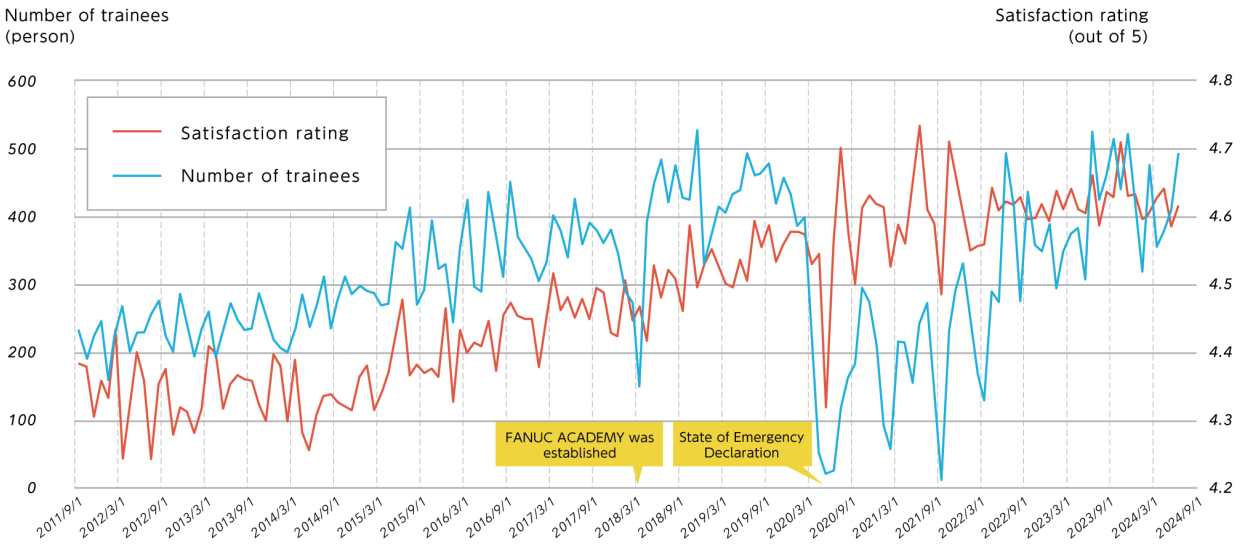
Systems to Enhance Educational Effectiveness

Academy Courses	Actual products are installed in our classrooms. In training rooms, there is an actual product made available to each trainee for training of a CNC, robot, and ROBODRILL so that trainees can receive training in person while operating the actual products.
eACADEMY	eACADEMY offers two styles of training: live online seminars that even persons living far away can attend, and on-demand seminars providing training material that can be studied multiple times, regardless of time or location.
Guest House	There are 110 spacious guest rooms. There is also a cafeteria and large bath.

FANUC ACADEMY's Satisfaction Rating and Number of Trainees

We have revised our systems to thoroughly enhance educational effectiveness, and have received a rating of 4.5 or higher out of 5 on the trainee satisfaction survey, since 2019.The average satisfaction rating for the FY2023 was 4.62.

FANUC ACADEMY's Satisfaction Rating and Number of Trainees



* The number of trainees decreased from February to March 2018, due to the transition from FANUC Training Center to FANUC ACADEMY. During this period, the Nagoya school continued to offer training.
* Due to COVID-19, the number of trainees decreased 2020.

Respect for Trainee Diversity

When we built FANUC ACADEMY in 2018, we set up a Muslim prayer room for trainees. This was done to ensure the facility takes into consideration the religions and customs of employees and trainees from around the world.
Food served at the facility includes vegetarian items and gluten-free items.

Door sign


Place for Wudu


Prayer room

With Our Employees

Basic Approach

FANUC considers its employees to be human resources who are indispensable for the Company's business activities. We will support the health and growth of our each of employees and provide an environment that allows each employee to attain self-realization with a sense of purpose.

Promotion of Employee Diversity & Equal Opportunity

Basic Approach

FANUC believes that (1) each individual should be able to respect each other's individuality and maximize their abilities, and (2) individuals and the organization should grow together by connecting the strengths of individuals and making them the strengths of the organization, thereby creating new value for society. Through the promotion of diversity and inclusion, FANUC will work to create an environment that accepts and provides equal opportunities for the diversity of our employees.

Diversity & Inclusion Statement

Diversity is the cornerstone of "one FANUC" and the driving force of our growth

Each of us has diverse values, sensibilities, and abilities.
We believe that we can make FANUC develop and grow even stronger by combining our strengths as "one FANUC" through respecting each other's differences as "individuality" and by maximizing our abilities and playing an active role.
The objective of FANUC's diversity and inclusion is to connect the strengths of individuals and making them the strengths of the organization, enabling individuals and the organization to grow together sustainably.
The FANUC Group provides indispensable value throughout the world in the field of factory automation by promoting diversity, and will continue to be a company that is trusted by all stakeholders.

Diversity & Inclusion Action Policy

- We aim to create an environment in which all employees, regardless of gender, nationality, race, religion, age, disability, sexual orientation, etc., have a sense of responsibility as members of the FANUC Group and can maximize their abilities.
- We will provide support so that each employee can play an active role and continue to grow through their own work.
- We respect the individuality of every employee, and by bringing together their strengths as "one FANUC," we aim to build a corporate culture that is creative and full of vitality, and to become a company in which all employees can contribute to the development of society.

Initiatives

(1)Implementation of Diversity Training

FANUC positions the promotion of diversity as a key issue for the Company's sustainable growth and will continuously hold diversity training for all employees in order to foster an organizational culture in which diversity is accepted by all employees. The training aims to foster and instill a sense of ownership through an understanding of the significance and importance of diversity promotion, as well as to convey key points that each individual should be aware of and work on in their own workplace in order to lead to concrete actions on their part.

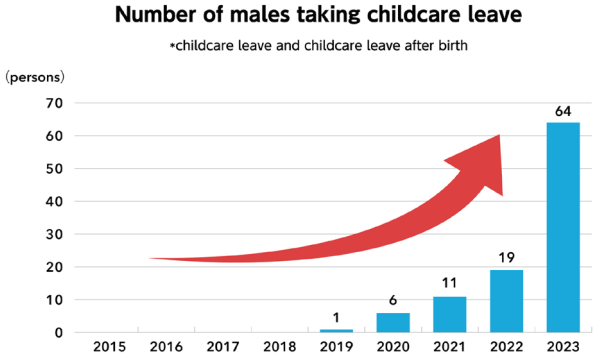
(2)Gender-Related Initiatives

<Promoting the Active Participation of Women>

In addition to striving to ensure that employees can play an active part in the workplace regardless of factors such as nationality and gender, etc. FANUC has enhanced various systems including maternity leave, child-care leave, and shorter working hours until children finish elementary school, so that women can pursue their careers without interruption. In this manner, FANUC fully supports the active participation of women in the workplace. Recently, women have increasingly playing active roles as executive employees in various fields, and some have been promoted as officers.
In April 2021, we renewed our General Employer Action Plan Based on the Act on Promotion of Women's Participation and Advancement in the Workplace. With the aim of enhancing workforce diversity by increasing the percentage of female employees, we are actively promoting the recruitment of women establishing a target of 10% of regular female employees for the Company as a whole. This numerical target was set in consideration of the small number of women in the population of students in the mechanical, electrical, and information fields, which are the focus of our recruiting activities.
To achieve these goals, we are promoting efforts such as having female employees visit schools and handle company visits by female students when recruiting for technical positions, and promoting efforts to create opportunities for women to discuss work and actual lifestyles. We are also implementing initiatives such as external seminars to support career development for female employees.
In 2023, we held a social event for female outside directors and female employees. Many female employees participated, and we are promoting bottom-up initiatives to discuss issues within the Company.

<Support for Balancing Work and Home Life>

At FANUC, 100% of the female employees who have used the child-care leave system during the past three years have returned to work, which confirms that the Company's working environment is comfortable for women. Furthermore, we opened a nursery for employees' children in the Headquarters' site in April, 2019, using the company-initiated nursery business system, supervised by the Cabinet Office. To reduce total actual working hours, we have set the annual paid leave-taking rate to at least 80%, so paid leave can be more easily used to balance work and home life.
As an initiative to encourage male employees to take child-care leave, we have posted on the companywide portal site Q&A and guidance documents regarding leave systems for child care and nursing care as well as support offered by the government. A help desk has also been set up in the Human Resources Department to support the balance between work and child care and nursing care. This approach has spread knowledge and understanding of our initiatives within the Company, and more male employees are taking child-care leave. Since 2019, the number of male employees taking childcare leave has increased every year, and in 2023, 64 male employees took the leave.



In addition to the statutory childcare leave system, we have a "Wife's Maternity Leave System," which can be taken when a spouse gives birth with 100% of pay guaranteed. In FY2023, 168 employees took childcare leave, including the Wife's Maternity Leave System, for a take-up rate of 90.8% (number of employees who took leave/number of employees eligible for leave).

(3) Disability-Related Initiatives

When determining assignments, FANUC takes into account the characteristics of each individual's disabilities as well as his/her aptitudes, while also considering safety aspects so that persons with disabilities can play an active role in the Company. We conduct interviews, workplace tours, and workplace training as necessary to prevent mismatches after joining the Company.
We have also established a support system to promote the employment of persons with disabilities, by cooperating with the Japanese government's Hello Work employment centers and the Vocational Center for Persons with Disabilities, and by appointing vocational life counselors for persons with disabilities.

(4) Initiatives for Nationality, Race, and Religion

In accordance with our Human Rights Policy, FANUC considers respect for human rights to be a fundamental principle for all of our activities, and we respect the human rights of all people involved in our business. FANUC thoroughly implements the "prohibition of discrimination based on race, creed, gender, social status, religion, nationality, age, mental or physical disability, sexual orientation, sexual identity, etc." in its recruitment practices, as well. While we hire students from overseas, we prohibit any special treatment or discrimination against them in any way because of nationality.
FANUC also strives to provide a working environment that is comfortable for foreign employees. We offer vegetarian food, gluten-free food, etc. to employees for whom religious dietary considerations are required. FANUC ACADEMY has facilities that take into account the religions and customs of employees from all over the world, including Muslim prayer room for trainees.

Door sign


Prayer room


Place for Wudu

(5) Age-Related Initiatives

In October 2006, FANUC extended its mandatory retirement age from 60 to 65 years.
Employees who have reached the retirement age of 65 years may continue to work at the Company if both the Company and the employee so wish.

Employee Health and Safety

Health and Safety Principle

FANUC considers the health and safety of its worker's first issue.
1. Safety is created through the collective creativity and ingenuity of each individual in each workplace, with the participation of all employees.
2. We create a clean, bright and comfortable workplace.
3. We promote the mental and physical health of our workers.

Policies

Health and Safety Management Policy

1. Respect consultation and participation with workers based on the recognition that health and safety are secured through good communication.
2. Comply with laws and regulations related to health and safety and our health and safety policies and establish necessary voluntary standards to improve the management level.
3. Appropriately implement measures under the health and safety management system and aim to continuously improve the level of health and safety in cooperation with workers.
4. Implement risk assessment at each workplace to reduce risk and prevent occupational accidents.
5. Improve the work environment by utilizing the results of the work environment measurement.
6. Actively promote and implement activities related to health promotion through our health and productivity management.
7. To implement these policies, invest appropriate management resources and continuously make effective improvements.

Promotion Framework

FANUC has established the FANUC Health and Safety Committee as an organization that mainly discusses and determines company-wide safety and health management policies, related measures and significant issues.
The President and Representative Director is designated as the chairperson, with the general managers, the heads of the main divisions, and representatives of the labor union as its members. The Safety & Health Department of the Human Resources Division serves as an organizer in coordinating activities for the meetings held twice a year.
In addition, we have established District Health and Safety Committees based on the laws and regulations in five factory districts and four sales office districts for health and safety activities and communicate the results of discussions with the labor union and their instructions to each workplace.

Initiatives

FANUC has implemented Health and Safety Rules to ensure the health and safety of FANUC Group employees, contract employees and part-time employees, in order to make work smoother and improve productivity.
When employees of contractors and subcontractors perform tasks at FANUC, we do its best to prevent accidents, injuries and health problems from occurring, in conformance with FANUC's Contractor Safety Management Rules.

Priority Activities for Health and Safety

FANUC has specified seven priority activities and are pursuing our efforts with each workplace.We aim to reduce occupational accidents by setting single-year goals regarding safety management.

1.Communication	Ensure health and safety by having discussions with workers through good communication at health and safety meetings, etc.
2.Complying with laws and regulations	Comply with occupational health and safety laws and regulations and other requirements to which we have consented.
3.Improving health and safety standards	Set targets for reducing occupational accidents, implement measures to achieve them, and make continuous improvements as necessary.
4.Preventing occupational accidents	Reduce occupational accidents by estimating and reducing the risks inherent in equipment and operations through risk assessment. Create missing work procedures, eliminate unsafe conditions and actions, and reduce occupational accidents.

5.Improving work environment	Improve the work environment based on the results of work environment measurement and improve operations through health and safety patrols. Reduce risks in handling chemical substances.
6.Promoting health	Maintain good health through health management.
7.Education and awareness	Provide education to all workers to raise their risk sensitivity and reduce their risk-taking behavior. Exchange information necessary for health and safety activities with our group companies.

Equipment Pre-commissioning Safety Inspections

In its equipment pre-commissioning safety inspections of new production equipment, FANUC identifies and assesses risks and conducts risk management related to health and safety. The Production Engineering Department, Manufacturing Department, and Health and Safety Department conduct risk assessments from their respective viewpoints and make determinations of “operable”, “provisionally operable”, or “operation suspended”. For determinations other than “operable”, countermeasures are taken within 30 days, and the equipment in question can be put into operation after it is determined to be safe.

Health and Safety Education

FANUC conducts grade-based education programs on occupational health and safety. It also conducts safety education for all employees at the time of employment and at times of operational changes.

Number of Employees in Health and Safety Education

In FY2023, FANUC conducted the following education programs.

Type of Education	Times Held	Number of Participants
Supervisor education by specialist institutions	3	50
Health and safety education by Health and Safety Department	3	54
Training at the time of appointment of safety officer (Grade-based department head training)	1	15
Health and safety seminar for section heads (Grade-based section head training)	4	72
ISO45001 Internal auditor training	5	118
ISO45001 Standard explanatory seminar	3	78
Risk assessment training	3	78
Risk prediction training for service personnel	133	1,296

Health and Safety Patrols

With the aim of ensuring essential safety, FANUC conducts patrols at each of its factories. In addition to patrols by health officers and industrial physicians, we conduct mutual patrols with other sections.

Knowledge and Measures Learned from Occupational Accidents

We investigate the causes of lost-time accidents, eliminate dangerous actions and tasks, and implement safety measures for both machinery and management. We also strive to prevent occupational accidents by sharing reports of near misses.

Safe Maintenance Work by Service Personnel

As service personnel perform their work alone at the customer's factory, it is important that they are more sensitive toward safety and predict potential risks. Risk prediction training by specialist institutions is provided to the representatives of service locations, who then roll it out in their respective service locations, to improve risk prediction capability.

We also develop maintenance tools for service personnel to achieve safe and efficient maintenance work.

Production and Distribution of Pocket Safety Card

We have produced a pocket-sized card that features FANUC's Three Safety Principles, Six Safety Action Principles, Six Prohibitions, and the FANUC KY Principles, so our employees can check them anytime, anywhere.

Health Management Support for Overseas Expatriates

As a company with many overseas offices, FANUC places a strong emphasis on providing healthcare support for overseas assignees. We offer information about recommended vaccinations in the destination area to overseas assignees and their accompanying family members. The company also covers the associated costs.

1. The Health Promotion Center provides information about recommended vaccinations in the destination area for overseas assignees and their accompanying family members, with the company covering the associated costs.

2. We monitor the status of employees who undergo annual health checkups and follow up with those who have not yet received their checkups. In addition, the Headquarters' Health Promotion Center centrally manages the results of medical examinations and offers follow-up services based on those results.

3. The company has introduced medical support services (Japanese language support, cashless medical services, emergency assistance services, etc.) to assist employees who may incur significant costs burdens by receiving medical services overseas.

4. The Headquarters regularly monitors the working hours of employees who are transferred overseas, and Japanese occupational physicians interview employees who show signs of overwork or other concerns.

Goals/Achievements

Goals

FANUC has established the Health and Safety Committee, with the President and CEO designated as the responsible officer. This Committee sets and monitors annual goals for lost time injury (LTI) frequency rates and intensity rates every year.

Achievements

There were no work-related fatalities of employees, contract employees, and temporary staff at FANUC CORPORATION in fiscal 2022. We have now achieved zero fatalities for more than 3 years.

Creating Better Working Environments

Initiatives

Practicing Work-life Balance

FANUC considers reduction of long working hours to be an issue, and is striving to lower the maximum limit for overtime work and promote the taking of annual vacations as corrective measures. We check the achievement status of these goals and working hours in monthly meetings attended by executives. Annual vacations were taken at a rate of 86% in FY2023, achieving the target of 80%. In addition, to facilitate flexible work styles that achieve a better balance with everyday life, it has been possible to take annual vacations in hourly increments since October 2020.
In addition to annual leave, we have also established systems to make it easier for employees to take various types of leave. We have been expanding the leave system to include an infertility leave system, and to add participation in children's school events, family care and infertility treatment as eligible purposes for using accumulated vacation (paid).
To better promote the balance of work and child care, we have extended the application of the shorter working hours system for child care until children have finished elementary school.
In recent years, in response to feedback from employees that they would want to continue working while receiving treatment even if they are diagnosed with cancer or other serious illnesses, we have established a helpdesk to support such employees so that they can work while receiving treatment, by promoting shorter working hours, telecommuting, and other means.

*Official working hours of FANUC CORPORATION is 7 hours 45 minutes a day, 127 vacation days in FY2023, and the annual total official working hours is 1,852 hours.

Main Systems

- Support for balancing work and childcare
- Childcare leave (Return-to-work ratio: 100%; Retention ratio one year after returning to work: 100%)
- Nursing-care leave (e.g., to take care of elderly parents)
- Infertility leave
- Subsidies for specific infertility treatment costs
- Shorter working hours for child care/nursing care
- Refreshment leave (can be taken after 10 years, 15 years, 20 years, 25 years, 30 years, 35 years, and 40 years of employment)
- Leave due to transfer of a spouse
- Telecommuting system

Promotion of Mental-health Care (EAP) and Line Care

In addition to treatment by psychiatrists and mental health care mainly by counsellors, as part of our health support initiatives for employees, FANUC offers an employee support program delivered by external specialist institutions to current employees and their family members, as well as former employees who were at least 60 years of age when they resigned.

Eligible persons can receive guidance and advice from specialists, including consultation on health-related concerns, mental health counselling, and second opinions.

By providing line-care training for management positions on a regular basis, we are working to create comfortable workplace environments and to achieve early detection and treatment for employees with mental health issues.

We also conduct stress checks every year, follow up with individuals with high stress levels, and analyze the ratio of health risks and individuals with high stress levels by organization. In these ways, we are making efforts to help those organizations with problems improve their workplace environment.

FANUC Nursery School (Corporate-led Nursery Business)

With the growing number of employees of the child-rearing generation in their 20s and 30s, we established a corporate-led nursery business in the spring of 2019.

Located next door to the workplace, FANUC Nursery School reduces the time for transporting children to and from the nursery school. It also enables certain handover of children in the event of an emergency. It provides an environment where users can comfortably balance work and life.

In addition, the facility actively accepts 0-year-olds, facilitating a smooth return to work for employees on child-care leave.

The school is actively engaged in initiatives to improve the quality of child care, such as offering various training programs to its nursery teachers and providing dietary education through preparing school lunches using local ingredients. In Oshino-mura, Yamanashi Prefecture, where our Headquarters is located, children hone their senses and cultivate a curiosity for learning through experiences in the changing seasons of nature.

FANUC Nursery School will continue to provide an environment in which its users will be able to balance child-rearing and career development with peace of mind into the future.

Name: FANUC Nursery School

Address: 3515-1, Shibokusa, Oshino-Mura, Minamitsuru-Gun, Yamanashi, Japan

Facility area: Floor area: 259.2 m²; Playground area: Approx. 470 m²

Capacity: 19

Eligible ages: From at least 31 weeks after birth to under 3 years old

Eligibility: Employees of FANUC

Opening hours: 8:00 a.m. – 7:00 p.m.

Promotion of Barrier-free Buildings

Along with the new construction or renovation of offices, we have been gradually installing inclusive restroom for all, designed to provide wheelchair access and gender-neutrality.

Facilities with wheelchair-accessible restrooms

Headquarters area	18 facilities
Tsukuba Factory	3 facilities
Mibu Factory	5 facilities
Local offices, local branches, service centers	11 facilities

Asset-building Support

- Corporate pension plan
  With the corporate pension plans, we guarantee future benefits to employees so that they can work with peace of mind.

- Retirement allowance plan
  FANUC has set up retirement allowance plans to reward employees for their long-term contributions to the company, so that they can live with peace of mind after retirement.

- Employee shareholding association plan
  FANUC has an employee shareholding association to support all full-time employees with long-term asset building by acquiring shares in the company.

Creating a Fulfilling Workplace

To enhance job satisfaction, we require a work environment where each employee can develop a career vision based on the values they cherish, pursue continuous growth to fulfill that vision, experience the joy of working at FANUC, and maximize their abilities.
As a mechanism to support individual career development and growth, we are currently working to create opportunities for workplace dialogue between supervisors and subordinates. We have also introduced an internal recruitment system to match departments that recruit personnel with employees who plan to achieve their career goals.
In addition, through our annual engagement surveys, we are continuously engaged in efforts to improve organizational issues to create a workplace where each employee works with enthusiasm.

Initiatives at FANUC CORPORATION

Career Development Support

We are working to create opportunities for dialogue between supervisors and subordinates in order to support the career development of each one of our employees. We provide training for supervisors to improve their management and leadership skills, conveying the importance of supporting the growth of their subordinates through interactive dialogue, as well as to acquire skills and knowledge that can be utilized in dialogue situations with subordinates. For subordinates, we provide "young employee training" to implement growth plans based on values they cherish, as well as "mid-career employee training" to pursue areas of specialization as professionals. These trainings convey the concept of developing one's career vision through self-awareness assessment. In FY2024, we have conducted one-on-one interviews for executive employees and administrative and technical staff. We are committed to establishing a mechanism where regular dialogues between supervisors and subordinates help employees understand their expected roles, which also provide a platform for employees to communicate with their supervisors about how they intend to realize their career visions through their work efforts and receive support from them.

Internal Recruitment

We conduct internal recruitment where departments in need of new human resources clarify the requirements they are seeking and recruit personnel internally. With this system in place, employees are encouraged to take on new challenges to achieve their own career goals, thereby revitalizing the organization and enhancing individual motivation.

Engagement Survey

Every year, we conduct an "Engagement Survey". Each organization uses the results of the survey to identify organizational issues and implements countermeasures in a PDCA cycle to consistently improve the workplace environment and enhance employee job satisfaction.

Award Programs

On July 1 every year, at the Anniversary of Foundation Ceremony, FANUC presents awards to groups and individual employees who have made significant contributions to the Company's business performance or who have undertaken outstanding activities that serve as a model for others. Other awards include those for employees who have created patented inventions and other inventions that are beneficial to our business.
In 2023, we presented the Special Achievement Award, Achievement Award, Invention Award, and Outstanding Safety Workplace Award.
The awardees received a certificate of commendation and cash reward, and the Special Achievement Award recipient was also presented with a medal.
The Special Achievement Award and Achievement Award are often given to teams that cross business divisions and administration divisions, signifying the practice of "one FANUC".
The Outstanding Safety Team Award was presented to teams that achieved remarkable results in the elimination of occupational accidents.

As for services, at the annual Global Service Conference, we present awards to the top service personnel from all over the world who have provided excellent service in the past year. In 2024, we presented awards to 13 individuals or groups from 12 companies.

We also have an award system for sales, and each month we select top salespeople who have achieved remarkable results, and publicize their achievements and comments on the company portal site in Japan and overseas.

In addition, employees and teams in the sales engineering and support divisions who are not directly involved in sales are also recognized as top sales support personnel at the FANUC Global Conference held each year.

Initiatives at FANUC America Corporation

FANUC America takes great pride in being an employer of choice and knows that its employees are its most valuable assets. With the significant changes that have been seen in the employment market, trends in attracting talent, recruitment initiatives, increased employee expectations, and the growth and expansion FANUC America has seen in the past couple of years, we felt it was important to elevate our efforts related to employee engagement. Therefore, in August, 2022, we decided to move from a traditional employee survey to the using the gold standard, the Gallup Employee Engagement Survey. We launched the Employee Engagement survey to FANUC America employees and accomplished 80% employee participation. Employee engagement is a foundational component to workplace outcomes and have a direct link to employee wellbeing, manager development, and overall organizational performance. This evolved approach will help us to make employee engagement a central part of our corporate strategy including attracting talent, onboarding, managing performance, talent development, employee empowerment and retention. Through the results of the Gallup Employee Engagement Survey and the manager tools provided, we can better incorporate employee feedback into all aspects of the employee experience allowing us to continually improve through action planning and ongoing feedback. The Gallup tools allow managers to track and build on action plans throughout the year. In addition, our results are benchmarked against the significant pool of Gallup data. We plan to conduct the survey again in August, 2023, to monitor our development and progress.

In addition to our annual Employee Engagement survey, FANUC America also participates in the Top Workplaces annual employee feedback survey. Top Workplaces is a nationally recognized award throughout the United States that includes regional and national-level programs, plus industry and culture excellence awards. This award celebrates nationally recognized companies who make the world a better place and work together by prioritizing a people-centered culture and giving employees a voice. Annually, FANUC America participates in the Detroit and Chicago regional employee feedback surveys, completed by the employees of participating workplaces. In 2022, FANUC America received the Detroit award for the 11th consecutive year, and the Chicago award for the 5th consecutive year. Additionally, FANUC America received the new Top Workplaces USA Award.

With the feedback from both of these surveys, FANUC America continues to promote initiatives to engage, empower, and develop employees and attract new talent. This past year, we are proud that our employees started our first employee resource group, the Women's Resource Group (WRG), that now has more than 200 members. The WRG has led the way for additional groups to form in the future that will allow employees to better engage, interact and develop. We also have continued to invest in new training, recognition, employee benefits, and employee technology in response to our employees' feedback. In all of these areas, FANUC America will continue to prioritize our employees and show them how important they are.

Communication with Employees

Basic Approach

FANUC recognizes that each employee's individuality, as well as the comprehensive capabilities of our employees constitute the source of FANUC's growth and competitiveness. Accordingly, we believe that it is extremely vital to conduct bidirectional communication, that genuinely conveys the Company's status, policies, and expectations to our employees, while also receiving input from them.
In order to enhance communication, FANUC engages in indirect communication via the labor union, as well as direct communication.

Initiatives

Communication via the Labor Union

FANUC maintains sound labor-management relationships through regular exchanges of views between management and the FANUC labor union on a regular basis each year as follows:
FANUC labor union is currently under the Japanese Electrical Electronic & Information Union (“JEIU”).

1. Production Council (four meetings per year)
   The Council explains the Company's production status, hiring plans, work hours, and other short-term conditions to the labor union, and receives requests from the labor union.
2. Spring labor-management negotiations (five times from February to March)
   Spring negotiations are held to share the Company’s business condition and determine the working conditions based on a labor-management agreement.
3. Regular labor-management meeting (once per month)
   A forum is provided for sharing and resolving daily occupational, health and safety issues.
4. Labor-Management Overtime Management Committee (once per month)
   The Committee shares the actual situations and issues regarding work hours for objectives such as work style reforms, promotion of health, and work-life balance, and discusses directions for resolving these issues.
5. Labor-management secretariat meetings (as needed)
   At the meeting, labor and management share issues related to working conditions and legal reforms and discuss potential solutions.

Direct Communication between the Company and Employees

1. When the quarterly results are announced, the President and CEO sends a message to all employees about the company's performance and the background to the results, and also explains the situation via web conference to managers at managerial level and above, in an effort to deepen their understanding of the company's situation and increase their sense of unity.
2. At each milestone, such as when new employees join the company, employees are promoted to senior level or are posted overseas, the President and CEO directly communicates FANUC's management philosophy and policies and expectations of employees in person, leading to increased pride and engagement in the company and their work.
3. In FY2024, we have held roundtable discussions between employees and general managers in order to improve employee engagement. The aim of these discussions is to improve the motivation and job satisfaction of participating employees by talking about how general managers approaches their work.

Development and Education of Employees

Basic Approach

FANUC supports the growth of our employees as human capital who are indispensable for FANUC's business activities and who contribute to the value enhancement of FANUC.
In order to realize sustainable growth as a company in the future, we believe it is necessary to provide employees with opportunities to deepen their understanding of our basic principles and organizational vision, to act autonomously as strong individuals who recognize their own role, as well as to learn and grow according to their own career aspirations and strengths, and to maximize their strengths through mutual interaction.

Initiatives

FANUC strives to enhance the value of our employees by providing support for their individual growth and career development.
As a training system for this purpose, we are currently providing managers with training to improve their management and leadership in the workplace according to their responsibilities, as well as training to learn the key points of how to support career development and growth through regular interactive dialogues (one-on-one interviews). Furthermore, we are conducting training for mid-career employees to pursue their areas of expertise as professionals and training for young employees to implement growth plans based on the values they cherish. These trainings convey the concept of developing one's career vision through self-awareness assessment.
In addition to training, we are working to establish a mechanism to support career development and growth through workplace dialogues. In FY2024, we have conducted one-on-one interviews for executive employees and administrative and technical staff.

Current Education and Training Framework

Training for All Employees

Training Name	Trainee	Content
Diversity training	All employees	Encourage understanding of the significance and importance of promoting diversity, foster and instill a sense of ownership, and communicate key points that each individual should be aware of and work on in their own workplace
Harassment prevention training	All employees	Acquire basic knowledge needed to prevent harassment and create a friendly work environment
Mental health training (line care/self-care)	All employees	Promote understanding and increase awareness of mental health issues, as well as deepen understanding of the care expected of managers for workplace members
Information security education	All employees	Raise employee security awareness and literacy, with the aim of preventing information security incidents
Compliance education	All officers, all employees	We post various policies and guidelines on our company-wide portal site, and we are working to foster compliance awareness through awareness-raising and educating activities by providing various types of training. In addition, the following compliance trainings are provided to FANUC executives and employees, including contract workers and temporary staff, using e-Learning. • Whistleblower Protection Act • Confidential information management (Unfair Competition Prevention Act) • Insider trading regulations • Anti-bribery regulations for public officials (for Japanese public officials and equivalents) • Anti-bribery regulations for public officials (for overseas public officials and equivalents) • Antimonopoly Act

Management and Leadership Improvement

Training Name	Trainee	Content
Division head training	All division heads	Improve skills required to overcome management issues that should be considered by management leaders (management skills, growth strategy-making skills, life skills)
Department head training	All department heads	Establish management and leadership styles to lead the workplace based on awareness of the role of one's own department from a company-wide perspective
Workplace management training	All section heads	Learn the basics of management to enhance organizational capability as a manager of an organization and maximize their section's outcomes
One-on-one interview training	All managers	Understand the key points of one-on-one interviews, i.e., communicate organizational policies, enhance organizational capabilities through supporting subordinates' growth, and foster a fulfilling workplace.
Training for new executive employees	Employees promoted to executive positions	Learn leadership for achieving results as a team, with the aim of deepening their own expertise and solving issues that they are addressing as a group

Career Development

Training Name	Trainee	Content
Mid-career employee training	Mid-career employees	Cultivate an awareness as a "professional" who plays a central role in the execution of workplace operations, and pursue their "unique" area of expertise to lead the workplace as a front-runner.
Young employee training	Young employees (three years since joining the Company)	Foster independent human resources who can proactively approach their work from their own awareness of the expectations of others, their personal strengths, and their core values

Management Capability Improvement for Manufacturing Sites

Training Name	Trainee	Content
Team leader training	All team leaders	Raise awareness of one's role as a supervisor at the frontline of the manufacturing site and improve the knowledge and practical skills required to manage a workplace as a leader
Young technical employees training	Young technical employees (6 or 7 years with the company)	Cultivate an awareness as a member of the organization who is responsible for the execution of manufacturing operations and the preservation and enhancement of organizational strength, and connect it to actions for encouraging others and resolving work issues.

New Recruit Training

Training Name	Trainee	Content
New Recruit Training	All new-graduate recruits and mid-career hires	Learn basic knowledge as employees of FANUC, such as its business, history, basic principles, organizational explain and require compliance with governance and various other policies as well as human rights policies.
Etiquette training	All new-graduate recruits	Acquire business manners to facilitate work and become a trusted corporate person through appropriate behavior and communication as a member of society.

Foreign Language Training (English)

To help individual employees enhance their skills according to the language proficiency requirements of their work, in addition to the TOEIC exam, we have expanded our training options to include self-development programs, such as business English and English conversation.

Division-based Training

Besides the training programs described above, each division has their employees attend external workshops and provides training sessions for them to acquire the particular knowledge and skills required for their assigned tasks.

Cultivation and Educational Training in the Service Division

The Service Division conducts cultivation and educational training for service personnel. At FANUC, we believe that improving the level of the services provided by our service personnel is of utmost importance. As such, we are working to provide high-quality services globally through the cultivation and education of our service personnel.

In addition to etiquette training for all new-graduate service personnel in Japan, we strive to further improve customer satisfaction by giving consideration to personal appearance, behavior, and speaking manner, based on the Service Engineer Code of Conduct.

In addition, we have started an initiative with some products to transfer young service personnel to the sales and technical support departments (for a designated period of about two years) in order to cultivate a multifaceted viewpoint, which will lead to career advancement and improvement of duties, by allowing them to see their own departments from the outside.

Apart from this, we would like to further improve the efficiency of current duties by appointing younger field service personnel for call center duties, which until now we thought could only be performed by veterans, using databases and reception systems.

For the first time in three years, in 2023, new employee training was conducted face-to-face. In addition to the in-person training, we provided all employees with a tablet and laptop computer immediately after they joined the Company and educated them on basic knowledge by sharing with them the e-Learning contents produced by FANUC ACADEMY and other resources prepared in-house by individual departments.

Over the approximately four months after joining the company, we have provided technical training, basic education as a working member of society, and safe driving education by an external lecturer. For future required qualifications, we have started providing special education for handling industrial robots, low-voltage electricity, full harnesses, etc., from the time they join the company so that they can safely carry out their duties.

After being assigned in August and two months of on-the-job training, new employees receive two months of additional training from October in order to establish proficiency and enhance understanding.

Moreover, in order to drive company-owned vehicles on a daily basis, they attend courses such as on-site training from local police departments and "safe driving based on accident examples" from non-life insurance companies to improve their safety awareness. (Domestic Service Division)

Because our maintenance work is essentially based on client visits, we conduct not only general information security training but also training on client information management in order to ensure thorough information handling.

Similarly, service personnel already active in the field are encouraged to actively participate in ACADEMY’s training courses for customers and exclusive training courses for service personnel. Furthermore, to share as much information as possible, we provided online education, including technical education, safe driving education, and lessons on safe working, by connecting FANUC Headquarters, Hino Branch, and the various service locations throughout Japan.

Amid the COVID-19 pandemic, we maintained a high level of service overseas by using videoconferencing systems, on-demand seminars, and video materials to provide overseas service personnel with educational training of maintenance technology. They have resumed trainings at FANUC ACADEMY with the lifting of travel restrictions.

Technical education at FANUC ACADEMY	FANUC ACADEMY provides technical education to service personnel Japanese and overseas almost every week, utilizing training programs that incorporate our customers’ requests.
Technical education at principal subsidiaries	We also provide technical education to service personnel at FANUC America, FANUC Europe, and other principal subsidiaries. With regard to education on new models and advanced technology, the persons in charge participate in programs offered by FANUC ACADEMY to acquire the necessary skills, and deploy them within their offices after returning to their countries.
Introductory training and follow-up training of new employees	In Japan, we provide intensive education to new service personnel for four to five months, at the time of onboarding. Service personnel hired overseas are also given training in a planned manner at the Headquarters.
Winter intensive training (Japan)	In the winter, FANUC ACADEMY conducts intensive skill improvement training, mainly with regard to new products, so that all service personnel are able to provide high-quality service based on FANUC's global standards.

Implementation Status of Education and Training for FY2023

Number of FANUC ACADEMY trainees	Domestic service personnel: 249 Overseas service personnel: 257
Number of trainees trained in principal group companies	Overseas service personnel: 1,598
Number of FANUC ACADEMY training hours (annual average per trainee)	Domestic service personnel: 24.0 hours Overseas service personnel: 36.0 hours

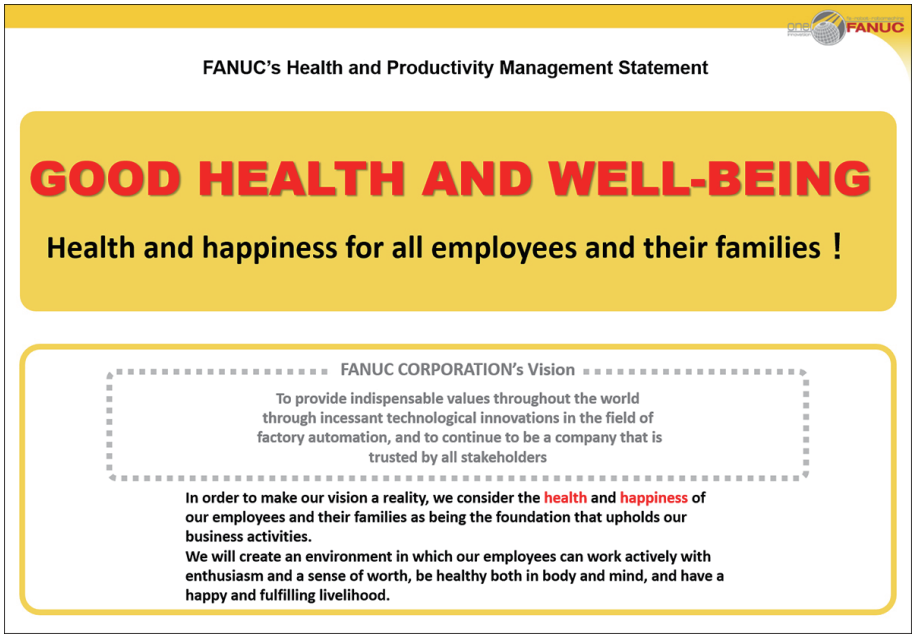
Health and Productivity Management

FANUC's Health and Productivity Management Statement

Creating an Environment in which Employees Work Enthusiastically with a Sense of Fulfillment

FANUC considers the health and happiness of its employees and their families as being the foundation that sustains its business activities. Based on this belief, focus has been placed on "Health and Productivity Management" since fiscal year 2022, in order to realize this vision.

For this end, the company is creating an environment in which employees are motivated to work enthusiastically as well as feeling gratified, being sound in both body and mind, leading to happy and fulfilling lives.



Recognition as a Certified Health & Productivity Management Outstanding Organization

FANUC has been recognized as a "Certified Health & Productivity Management Outstanding Organization" since 2023 under the large enterprise category of the "Certified Health & Productivity Management Outstanding Organizations Recognition Program," of the Ministry of Economy, Trade and Industry (METI).

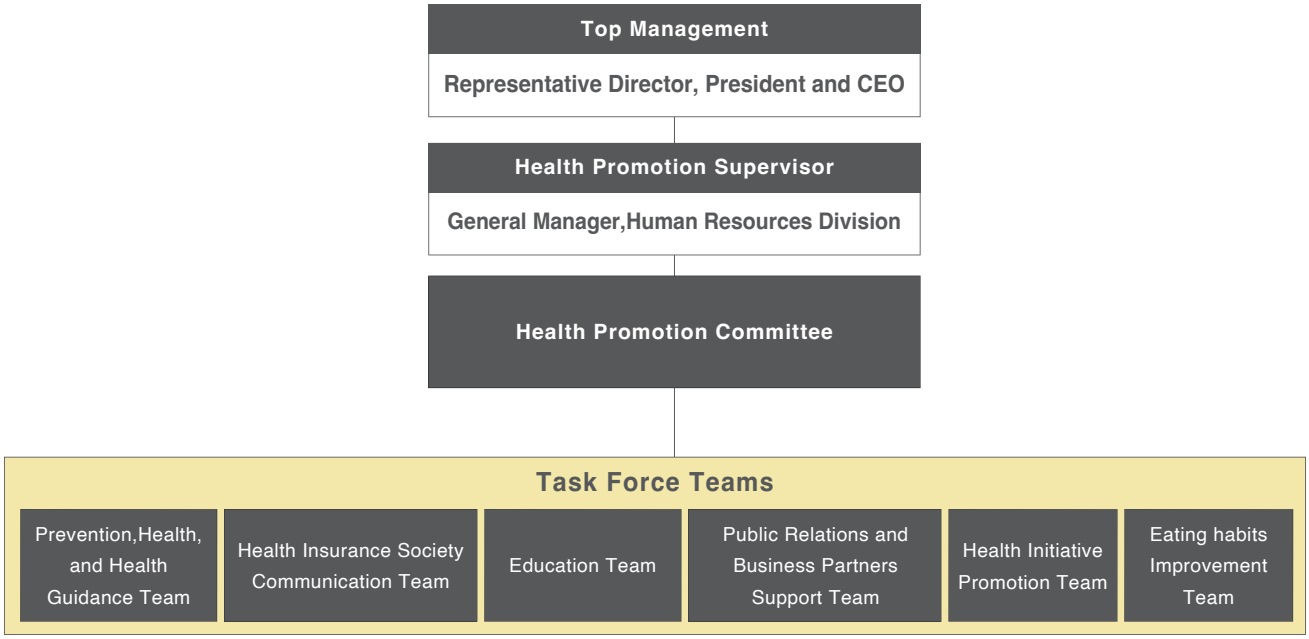
The "Certified Health & Productivity Management Outstanding Organizations Recognition Program" honors large enterprises as well as small and medium enterprises for their outstanding implementation of health and productivity management to overcome health-related challenges, through practical actions focusing on the community and workplace, as well as approaches encouraged by the Nippon Kenko Kaigi (organizer of the recognition program).

In April, 2022, FANUC declared its Health & Productivity Management Statement: "GOOD HEALTH AND WELL-BEING – Health and happiness for all employees and their families!" Since then, the company has continuously engaged in the promotion of the objectives of this program.

2024
健康経営優良法人
Health and productivity

Promotion Organization

FANUC has appointed the President and CEO as head of the Health and Productivity Management Promotion Project. The Human Resources Division is responsible for health promotion and the Welfare Department serves as the administrative office. Six task force teams have been established under the Health Promotion Committee to actively incorporate the opinions of related divisions and work together to promote the program.



FANUC's Health & Productivity Management Strategy Map（PDF file）

Activity Policy

1) "Health promotion," which further strengthens the foundations of the company's health, will become a new engine that will drive and boost FANUC's corporate value.

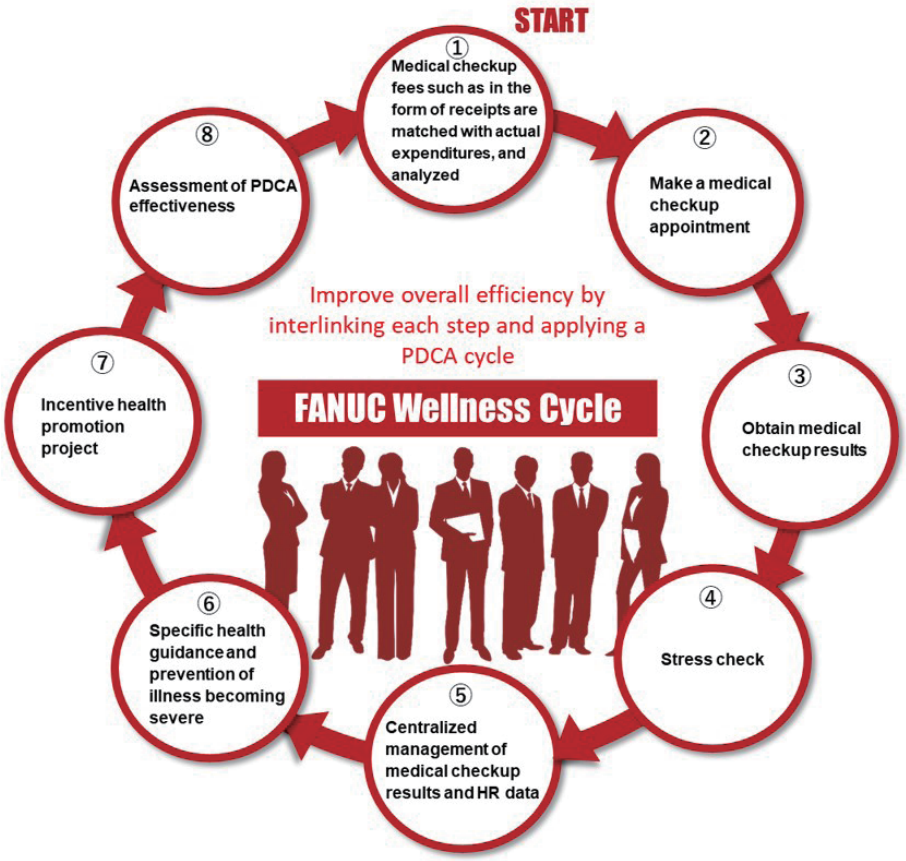
2) By being recognized as a "Certified Health & Productivity Management Outstanding Organization," FANUC will endeavor to raise the level of recognition by progressing mid-to-long term actions.

Commitment

1) Encourage “education” and “communication” to nurture a corporate culture which enables employees to work actively with a feeling of satisfaction.

2) Synergize the effects of each health promotion project.
Operate a PDCA (Plan-Do-Check-Act) cycle in line with the annual business cycle. This will contribute to the acquisition of “health literacy” with which individuals can obtain and manage their knowledge on health matters.
※Annual business cycle = FANUC Wellness Cycle (below)

3) Everyone participates. Everyone makes efforts to progress. Health and productivity management is for everyone.



Initiatives

Measures to Maintain Employee Health

Analyzing and visualizing the results of employee’s regular medical checkups helps maintain the health of employees such as prevention of severe diseases. We use the participation rate in such regular medical checkups as an indicator for measuring the effects of efforts to promote health and productivity management.

In FY 2023, we achieved our goal of 100.0% participation rate.

・Participation Rate in Regular Medical Checkup

FY2019	FY2020	FY2021	FY2022	FY2023
99.9%	100.0%	99.9%	100.0%	100.0%

*FANUC Headquarters’ area

Since FY2022 we began offering employees aged 32 and over medical checkups of their brains, with such checkups to be offered every four years.

Mental Health Support

In addition to providing internal and external points of contact for employees to speak to somebody about their mental health, we also conduct annual stress checks on all employees and contract employees. We follow up with those employees who display signs of high stress levels, while we also analyze each of our organizations for health risks and the ratio of employees displaying high stress levels to identify the organizations facing issues and improve their working environments.

We also provide mental health training (self-care) via e-Learning tools through which we offer employees knowledge concerning issues of mental health and stress and an opportunity for them to think about how they can control their own stress levels.

In addition, the Health Promotion Committee has twice issued dedicated articles in the monthly e-mail newsletter concerning matters of mental health.

・Participation Rate in Stress Check Examination

FY2019	FY2020	FY2021	FY2022	FY2023
96.3%	96.3%	96.9%	96.7%	97.3%

*FANUC Headquarters' area

Introduction of Employee Group Insurance (Group Term Life Insurance and Group Long Term Disability Schemes)

The Group has introduced Group Term Life Insurance and Group Long Term Disability schemes through which the Company will pay a portion of the insurance premiums for those officers and regular employees wishing to avail of the schemes. By providing systems that offer guarantees in the event of death or severe disability and support in the event of reduced income as a result of long-term disability as a result of injury, we have built a working environment that enables our employees to work with peace of mind.

Thorough Efforts to Raise Awareness of FANUC's Health Hotline

FANUC's health hotline is a consultation service run by an external specialist institution that can be used by FANUC officers, employees, contractors employees, and their family members. The hotline offers services free of cost relating to health concerns and consultations, mental health, and the offering of second opinions.

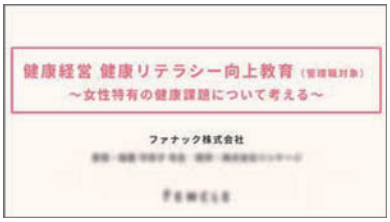
Introduction of Health and Productivity Management Promotion Infrastructure (KENPOS)

We have introduced KENPOS, for use online or with a smartphone, to encourage employees to make lifestyle improvements through exercise and dietary management.

Raising Awareness of Female-Specific Health Issues

We ran an e-Learning course entitled “Female-specific health issues” targeting managers as part of efforts to improve their health literacy. A video of this training session was posted on the Company’s internal portal site so that it could be viewed by all employees.

In fiscal 2023, we also plan training sessions for all our employees, including contract workers.



Health Care Support and SDGs Awareness Promotion at Company Cafeteria

In cooperation with a cafeteria operator, our company cafeteria provides meals to many employees. It supports employee health by offering nutritionally balanced breakfast, lunch, and dinner menus prepared by a full-time nutritionist while taking into consideration the needs of our employees.

In addition, the cafeteria is working to “reduce food and resource losses” based on analysis of meal count trends. Furthermore, in our commitment to “responsible food procurement” and “production”, we upcycle waste oil, develop alternative protein-based menus, and offer sustainable seafood*. Through these efforts, we aim to raise sustainability awareness by exposing our employees to social issues related to the SDGs in our everyday lives.

Note: Sustainable seafood is caught in well-managed fisheries that consider marine resources and the environment or farmed with minimal environmental and societal impact, ensuring a future where we can continue to enjoy fish.

Use of Electric Height-Adjustable Desks

By using electric height-adjustable desks, employees can easily choose to sit or stand when working, by adjusting the desk height to a comfortable level according to the employee’s posture and height.

We strive to create a workplace with focus on the benefits of ergonomics, employees’ health, and performance.

With Local Communities

Basic Approach

FANUC has over 270 offices covering more than 100 countries around the world. We aim to earn the trust of all stakeholders of our offices and to be rooted in the communities surrounding them. In our Headquarters area, many of our employees have moved from other areas to Yamanashi Prefecture, following a local lifestyle while working close to home. FANUC Headquarters employees rely on the organizations and facilities of the local government and community in their daily lives. Accordingly, FANUC makes efforts to contribute to the local community.

Supporting Research through the FA Foundation

The FA Foundation was founded in 1989 by Dr. Seiuemon Inaba, the current Honorary Chairman of FANUC. FANUC donated funds at the time of establishing the Foundation, and has made donations to cover its operating costs since that time.
The mission of the FA Foundation is to contribute to society by improving automation technology, and automating machinery and machine factories, primarily through official commendations of research achievements related to factory automation (FA) and industrial robot technologies.

In fiscal 2023, a total of seven outstanding theses were commended by the Foundation.

FA Foundation (In Japanese)

The Consortium of Human Education for Future Robot System Integration

On December 18, 2019, under the initiative of the Ministry of Economy, Trade and Industry, industry players, including FANUC and the National Institute of Technology, signed a memorandum for establishing the Consortium of Human Education for Future Robot System Integration to develop human resources in robotics. This initiative aims to match schools and educational institutes with industrial players in the robotics field. It is hoped that such matching will introduce students and teachers to internship programs, promote the dispatch of robotics engineers from companies to schools, and facilitate the development of future human resources in the robotics field.
FANUC contributes to the development of human resources in robotics, through activities such as internship programs for teachers and the dispatch of lecturers to technical colleges and technical high schools. In FY2023, we actively engaged in activities to foster human resources for robotics, including dispatching lectures to technical colleges and technical high schools, holding training courses at FANUC Academy for teachers, and creating PR videos for students at the International Robot Exhibition.

Support for Creative Manufacturing Education that Brings Ideas to Life

The All Japan Student Indoor Flying Robot Contest

FANUC is a special sponsor of the All Japan Student Indoor Flying Robot Contest every year.
The 19th All Japan Student Indoor Flying Robot Contest was held from September 22 (Fri) to September 24 (Sun), 2023 at KATAYANAGI Arena, Kamata Campus, Nihon Kogakuin College (Tokyo). It attracted many people with participants of 76 teams from 35 institutes, which is the record high number.
This contest was intended to encourage students to engage in the making of things, but more importantly to develop human resources in aircraft design, control and other areas.
Participants conducted missions such as transporting goods and flying with an autopilot system, and competed in flight performance, control technology, and flying techniques.
At this contest, the FANUC Award was granted to the Kanazawa Institute of Technology who won the first place in the autopilot category.

Contributions and Donations to the Community around FANUC Factory Locations

FANUC has donated items such as testing machines and other equipment to the Fujiyoshida Municipal Hospital, which often assists us with employee health management, thorough examinations, etc.
Every year, we sponsor Shinto rituals and community events, make ongoing contributions to the Yamanashi Prefecture Community Chest's “Red Feather Community Chest”, and also regularly provide food support to the non-profit organization, “Food Bank Yamanashi”.

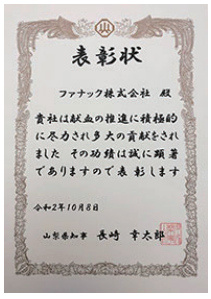
Up to 2019, we had donated 1,570 m² of land for road use for village road-widening projects in Yamanakako-Mura and Oshino-Mura. Furthermore, since FY2022, we plan to exchange and donate the company-owned portion of the land after the completion of the Oshino village road widening project.
Since 2022, we have been donating 10% of vending machine sales commissions from vending machines installed in our Headquarters area to the Gold Ribbon Network, a certified NPO.

■ Major Contributions and Donations

2020	FANUC supported the “Let's Cheer Up Healthcare Workers! Donation Project for COVID-19 Countermeasures” organized by Yamanashi Prefecture, and donated ¥50 million as part of support for COVID-19 countermeasures. We also donated face masks to the government of Yamanashi Prefecture, where FANUC Headquarters is located, and to Fujiyoshida Municipal Hospital.
2021	We built shelters at two bus stops that had no roofed structures and therefore offered users no protection from the wind or rain, and donated these shelters along with the road land to Oshino-Mura.
2022	Donation of €1 million for supporting the humanitarian crisis in Ukraine through the Yamanashi Branch of the Japanese Red Cross Society.
2023	We donated 20 million yen through Yamanashi Prefecture and the Yamanashi International Association for aid for victims of the earthquakes in south-east Turkey.
2024	We donated 20 million yen through the Japanese Red Cross Society Yamanashi Branch to support victims of the 2024 Noto Peninsula earthquake.

Blood Donation Drives

For six days between October 2 and 10, 2023, FANUC Headquarters held a blood donation drive by the Yamanashi Red Cross Blood Center for the seventh time in as many years. 467 employees donated blood in 2023.
In 2020, FANUC received the Governor's Commendation for Blood Donation Promotion, which is presented to organizations that cooperate with blood donation at least twice a year or that have had more than 50 blood donors for three consecutive years.
Our Mibu Factory in Tochigi Prefecture has also been conducting blood donation drives since 2018, with 95 people on April 17, 2023 and 97 people on October 5, 2023, for a total of 192 employees donating blood.
As a familiar social contribution activity, FANUC will continue these blood donation drives with the cooperation of our employees.


表彰状

ファナック株式会社 殿

貴社は献血の推進に積極的に尽力され多大の貢献をされました その功績は誠に顕著でありますので表彰します

令和2年10月8日

山梨県知事 長崎 幸太郎

Initiatives in Japan

Local Employment around FANUC Factory Location

FANUC factory locations take initiative for securing human resources from technical high schools in each prefecture every year, accepting them for factory tours prior to their application and providing them with opportunities to experience manufacturing sites.

Support for Reconstruction in Disaster Zones

FANUC assists in the restoration of disaster-stricken areas, in order to help disaster victims. Such activities include donations at the time of the Great East Japan Earthquake in March 2011, the torrential rains in the Kanto and Tohoku areas in September 2015, the Kumamoto earthquake in April 2016, and the heavy downpours centered on western Japan in July 2018, as well as recovery support activities for disaster victims, to enable affected customers to resume operations as quickly as possible.

Employees also engaged in volunteering activities in the aftermath of the Kumamoto earthquake. In addition, in January 2024, we donated to the victims of the Noto Peninsula earthquake.

Inviting a City Gas Station to the Area

FANUC invited a city gas station to be built in the Headquarters area to reduce power consumption, which helped promote the use of city gas among local residents.

Harmonization with Local Landscapes

Oshino-Mura, where the Headquarters area is located, offers a harmonic landscape where you can view a lot of nature, such as lakes, ponds and rivers created by Mt. Fuji's subsoil water, and man-made scenery like farming fields and thatched roofs, with Mt. Fuji in the background. The local governments of Oshino-Mura and Yamanakako-Mura have established landscape plans for the preservation of the landscapes, and FANUC is also actively working with those plans.

Most forest resources owned by FANUC consist of trees planted after the war. At FANUC Headquarters, following guidance from the Yamanashi Forestry and Forest Products Research Institute, we maintain and manage trees according to the Plan for Forest Restoration and Conversion into Broad-Leaved Forest, aiming to restore forests to a state in harmony with the region. We are currently promoting a plan to replace the artificially planted coniferous trees with rich broadleaf trees that bloom, bear fruit, and allow coexistence with small birds and animals.

In addition, we are conducting controlled logging of trees to prevent fallen trees for the purpose of avoiding fallen tall trees on the site obstructing village roads and interfering with electric wires, while planting tree species that naturally blend in with the land and the local area after logging is completed.

From 2015 to 2023, we carried out approximately 3,800 thinning and other controlled logging operations, and planted approximately 17,100 trees, mainly broad-leaved trees.

In addition, all exterior walls of FANUC's existing factories had previously been painted yellow, but when they were repainted during major refurbishments of the individual factories, gray is used as a base color and the amount of yellow used has been limited (e.g., 20% or less of external walls in the Headquarters area, 5% or less of external walls in the Hino area).

Offering the dormitory scheduled for demolition to disaster response training

In October 2022, we offered our dormitory scheduled for demolition to the Tsukuba Fire Department for disaster response training. This was in response to a request from the Tsukuba Fire Department to enhance disaster response capabilities by conducting destructive activities that are difficult to conduct in the training facility used on a daily basis and by conducting various types of training in an environment more similar to an actual disaster.

FANUC will continue to engage with the local community.

Initiatives at FANUC India Pvt Ltd

Towards Zero Hunger

In India, approximately 236 million children attend 1.1 million government schools. Children in government schools, especially those in villages are the children of migrant workers who help with household chores and are unable to eat even one meal a day. A meager dinner does not give them enough energy to last until lunch time the next day. The result is lack of concentration, inattention, lots of trouble, and absenteeism.

FANUC India provides meals to children and migrants.

- Provided breakfast to total of 883 children near Bangalore and lunch to 5,000 children.
- Operate a day care center in Pune, West India, with 130 children attending. The children are cared for and fed while their parents are engaged in work.
- Providing support to orphanages in Bangalore, Madurai and Coimbatore.
- Provided ration kits and cooked meals to migrants near Bangalore affected by the lockdown caused by the COVID-19.

Lunch distribution

Ration kit and cooked meals distribution

Supply Chain

Basic Approach

FANUC purchases raw materials, electric and electronic parts and mechanical parts used in its products, and the equipment, tools and fixtures used in our factories and other facilities, as well as outsourcing their machining and assembly, from approximately 1,000 suppliers. These suppliers are all important partners who are indispensable for the production of FANUC products, and we are working to establish a collaborative system with these suppliers that allows us to grow together. To this end, we strive to develop mutual trust, with a view toward fulfilling the social and environmental responsibilities required of supply chains by domestic and overseas communities.

- CSR Procurement Policy

Promotion Framework

Purchasing Department

At FANUC, as a point of contact with our suppliers, Purchasing Department gathers information on the quality, delivery time, and cost, while internally sharing information in a timely manner. Regarding CSR Procurement Policy and conflict minerals, Purchasing Department, together with Research & Development Divisions, requires our suppliers to comply with the reduction and elimination of harmful substances contained in products.
The Purchasing Department cooperates with Research & Development Divisions and Production Divisions to actively promote the use of multiple suppliers to reduce supply chain risks. In addition, with regard to parts (especially customized parts) that have only one supplier, the Department works to maintain an appropriate level of inventory even during ordinary times, so that in the event of a disaster, these parts will be secured until the supplier's factory recovers.

FANUC takes appropriate measures against supply chain risks in the event of a disaster. The SCRM Working Group studies the location and area of the manufacturing facilities for each part, so as to immediately determine which suppliers may have been impacted, in the event of a disaster. This data has assisted us greatly in securing service parts that became difficult to obtain due to the impact of COVID-19.
In addition, with the cooperation of our suppliers, the Group has built and is operating a system (automatic email transmission) to investigate the safety of suppliers' employees, as well as whether factories and other facilities have been damaged in the event of a disaster (an earthquake with an intensity of 5 or greater, etc.). The Group also investigates and analyzes our suppliers' efforts toward BCP, and urges suppliers to make improvements, when deemed necessary.
Once it had established mechanisms for scheduling the above activities on an annual basis and updating the information every year, and created a manual for each activity.

Due to the rapid increase in demand starting in 2020, the procurement of various parts, including semiconductors, was in a critical state. We established an Emergency Countermeasures Working Group with the Purchasing Department, Research & Development Division, and Production Division, and the entire company worked together to negotiate parts procurement, purchase market items, adopt alternative parts, and replace production processes, etc. to ensure that production could continue at a high level.

Disaster Response Team

In the event of natural disasters such as earthquakes and typhoons, the Purchasing Department conducts automatic email transmission (as described above). It also identifies suppliers that may have suffered damage based on factory location information it has studied in advance, and confirms their status.
In particular, in the event of a large-scale disaster, the Disaster Response Team initiates its activities in cases where the supply chain is deemed to have been seriously damaged. The Disaster Response Team comprises personnel selected in advance from each research & development division, each production department, and the Purchasing Department. These personnel work together to grasp the status of suppliers, confirm the delivery time of parts, and take supplementary measures for parts difficult to obtain.
In response to the turmoil in the supply chain caused by the impact of COVID-19, we established a Disaster Response Team and took various measures to ensure smooth supply of our products to customers.

Click here to see our responses to COVID-19.

Master Transaction Agreement

The following articles are incorporated in the master transaction agreement we conclude with each supplier, and compliance to these articles is required as important items.

Article 33 Environmental Policy and Environmental Laws and Regulations
Article 39 Elimination of Anti-social Forces

CSR Procurement Policy

FANUC established the CSR Procurement Policy in July 2019.
The Supplier Code of Conduct is prescribed within this Policy. We sent this Policy to each supplier and request their compliance. As time passed, we notified the companies again in June 2024 and requested that they comply with the content.

Declaration of Partnership Building

In August 2020, FANUC released a Declaration of Partnership Building with the aims of building mutually-beneficial relationships with suppliers in its supply chain and increasing added value across the entire supply chain through new partnerships with suppliers.
The framework and structure for the Declarations of Partnership Building have been confirmed by the Council on Promoting Partnership Building for Cultivating the Future, which consists of representatives from the business community and labor organizations, as well as government officials, and are being promoted by the Cabinet Office and the Small and Medium Enterprise Agency.
Under our Declaration, we will strive to ensure that SMEs do not bear the brunt of unfair trade conditions caused by the impact of COVID-19, surges in raw materials and logistics costs, and other reasons, and we will continue our efforts actively to encourage companies to introduce appropriate subcontract practices. We will also encourage the building of new partnerships that involve efforts to increase added value across the supply chain and open innovation that transcends business size, groups, and other boundaries.
In June 2024, we updated and published the latest version of the Declaration of Partnership Building. We also notified each supplier and made proposals for building better relationships.
To this end, going forward, we will continue to strive to develop mutual cooperation and relationships of trust that will enable us to grow and prosper together with our suppliers, with a view to fulfilling the social responsibilities of the entire supply chain.

Collaboration with Suppliers

FANUC conducts an annual SAQ (Self Assessment Questionnaire) on climate change and other issues for the top 80% of FANUC suppliers to collect information and conduct risk assessments.

The SAQ includes the following:

1.Compliance with laws and regulations and Respect for international norms
2.Human rights and Labor
3.Health and Safety
4.Environment
5.Fair business practices and Business ethics
6.Quality and safety
7.Information security
8.Business continuity plan
9.Establishment of management system

Based on the collected SAQ, we conduct environmental risk assessments. The score ratio of 85% or more is rated as "low risk," 75-85% as "middle risk," and less than 75% as "high risk".
With regard to the environmental risk, we have set a target of having less than 5% of our suppliers fall into the "high risk" category. In FY2022, 1.3% of our suppliers fell into this category, thus achieving our goal.

Conforming with Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and Act on the Promotion of Subcontracting Small and Medium-sized Enterprises

FANUC strictly complies with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors and the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises (collectively, hereinafter the “Subcontract Proceeds Act, etc.”). 726 companies, or 67% of all of our suppliers, are subject to the Subcontract Proceeds Act. We pay rigorous attention to ensure that there is no unjust disadvantage to our suppliers, in accordance with the Subcontract Proceeds Act, etc.

Conflict Minerals

FANUC has a policy of not using conflict minerals* in its products. Accordingly, we strive to gather as much information as possible from our suppliers, in order to confirm that the minerals are not sourced by illegal mining from conflict areas.

* Conflict minerals refer to minerals (tin, tantalum, tungsten, and gold) that are illegally mined in conflict areas (Democratic Republic of the Congo and surrounding regions). Companies listed in the United States are required to disclose and report the use of such minerals, under the conflict mineral disclosure rule (Dodd-Frank Act) of the U.S. Securities and Exchange Commission (SEC).

Reduction and Elimination of Harmful Substances Contained in Products

FANUC promotes reduction and elimination of use of harmful substances targeted by the RoHS Directive and the REACH Regulation. Accordingly, we notify our suppliers of the related policies and request their cooperation. Since new substances may be included due to revisions of the regulations, we always strive to obtain the latest information regarding the directive and regulations.

Establishment of the Supplier Hotline

In June 2021, FANUC set up the Supplier Hotline as a contact point for suppliers to report to if they discover illegal, fraudulent, unethical, or suspicious acts related to the business of the FANUC Group. Executives and employees of our suppliers can report directly to designated law firms, enabling us to promptly discover, correct, and prevent problems.

Disposal of Molds and Payment of Storage Fees

In March 2020, to protect subcontractors, the Ministry of Economy, Trade and Industry and the Small and Medium Enterprise Agency revised and enforced the standards for encouraging fair practices and other guidelines concerning approaches to enhancing proper mold management stipulated in the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises. Under the new standards, it is necessary to dispose of molds that have not been used for a long time or to pay subcontractors for the cost of storing them.
FANUC asked our subcontractors that store molds to file an application regarding the molds they wish to dispose of. We approved the disposal of some molds, and decided to pay storage fees for the other molds that should not be disposed of. We began the disposal of molds in March 2019 and the payment of storage costs in March 2020.

Lump-sum Full Payment of Mold Costs

In the payment of mold costs to subcontractors, the standards stipulated in the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises calls for the transition away from long-term payment methods such as 24-month installments, which place a burden on subcontractors, to methods of early payment, such as lump-sum payments. In April 2020, FANUC changed from the 24-month installment payment method we had previously employed to a lump-sum payment method.

Reducing paper use and improving operational efficiency through the introduction of EDI

We introduced a WEB-EDI system (FANUC EDI) in May 2023, which digitizes various documents such as purchase orders exchanged with suppliers, allowing data to be transmitted and received electronically. This has enabled us to reduce the volume of paper documents such as order forms used by our suppliers. At FANUC, we have also been able to reduce the amount of time and costs associated with sending documents by fax. By applying this function to some internal documents, we have been able to go paperless, reducing the amount of paper used by approximately 300,000 sheets per year. The digitization of these documents has led to a significant improvement in operational efficiency for both our suppliers and FANUC, while also mitigating the risk of document loss and enhancing security.

Goals/Performance

Single-year Goals

So-called silent change (changes made to the quality of deliverables, unbeknownst to the Company) at our suppliers may have a significant impact on the quality of FANUC products. In order to prevent such silent change, we require our suppliers to apply for changes in 4M (Man, Machine, Method and Material) and obtain FANUC's approval in the event of any changes made to deliverables. We send documents stating our request regarding changes to our suppliers, in order to obtain a response indicating their consent.
If some suppliers do not consent on the grounds of confidentiality or respond by adding conditions, we hold discussions with the said suppliers and strive to increase the number of suppliers who provide consent, so as to maintain a high level of quality without undermining mutual trust.

Performance in FY2023

We have been working continuously to achieve our single-year goals. In FY2023, we also sent the same documents as those of the previous year to obtain responses indicating our suppliers' consent. Even for suppliers whose consent we could not obtain, we have worked with quality control divisions to consider our suppliers' conditions, an approach that has allowed us to reach agreement with them in more and more cases. Going forward, we will strive to increase the number of suppliers who provide consent.

Medium-term Goals

We will build a database for the centralized management of supplier information. In addition to the supplier's information (sales, profit, items handled, and factory information) and the supplier's relationship with FANUC (transaction amount, products purchased, the contact department and PIC within the supplier), the database will also list an evaluation of the quality, delivery time, and cost of each supplier, aiming to raise suppliers' awareness. In addition, we will consider posting information such as the supplier's efforts on ESG-related items.
Over the next few years, we will need to significantly increase production, mainly of robots, but we anticipate difficulties in parts procurement. We will work with our existing suppliers as well as develop new suppliers to establish a stable parts procurement system.

Responsible Sourcing of Minerals

Basic Policy

As part of its corporate social responsibility, the FANUC Group is committed to acting in a socially responsible manner regarding the procurement of minerals.
The FANUC Group adheres to the “OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas,” in order to respect human rights and avoid contributing to conflicts, by not sourcing mineral resources such as tin, tantalum, tungsten, gold and cobalt, in its procurement activities, which are mined in conflict-affected areas and high-risk areas such as the Democratic Republic of the Congo (DRC) and adjoining countries, where there are concerns of human rights violation in such forms as forced labor or child labor, environmental exploitation, and actions which may fund armed groups.

Approach to Conflict Minerals

The FANUC Group surveys approximately 500 suppliers regarding their use of conflict minerals. In the unlikely event that a problem is found, we change the source we procure from to avoid using conflict minerals.

Sustainability Report 2024

Environment

Environment

FANUC Headquarters is located in a stunning forest environment adjacent to the Fuji-Hakone-Izu National Park. We have been working to protect this wonderful natural environment on our premises spanning 1.78 million square meters.
In 1999, in order to conserve the global environment, in addition to protecting the nature on our premises, we established the Environmental Policy, and have continued to update it since then. This policy guides all of our environmental initiatives by summarizing and clarifying our basic stance, which is to reduce the environmental burden at each stage of the product life cycle, from product development to procurement, production, and operation.
Based on our basic vision of “leaving nature and resources to posterity”, we have been working on reductions of CO_2 emissions and energy consumption, which are considered to be the causes of climate change, the efficient use of resources such as water and minerals, as well as the proper disposal and reduction of waste, from both the viewpoints of products and corporate activities.
FANUC shares this Environmental Policy not only within the Company and group companies, but also with its suppliers to work on achieving global environmental conservation together.

Policy

- Environmental Policy and Action Policy

Promotion Framework and Initiatives

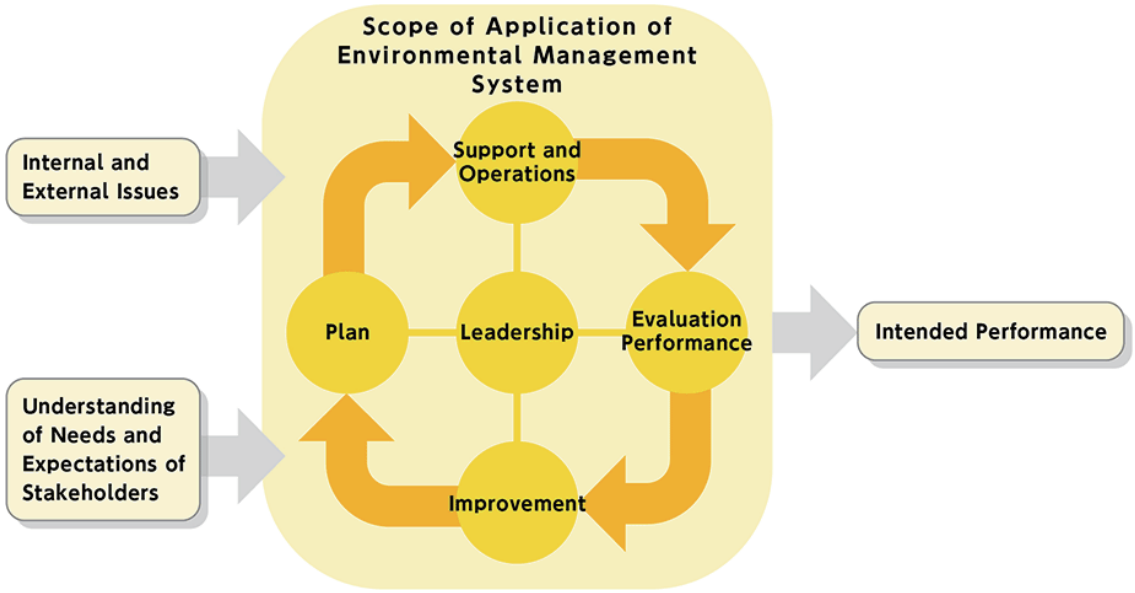
Environmental Management Promotion

FANUC recognizes that actions for the environment are an important tasks, with the President and CEO designated as the person responsible for the initiatives. Important environmental issues, including climate change, are reported to the Board of Directors for decision-making. Reports on the progress of FANUC's environmental initiatives, and the direct and indirect impacts of the environment on our business activities are collected from environmental managers assigned to the relevant divisions, and reported at the ISO14001 meeting, which is chaired by the General Manager, Production Division. Important matters are reported to the Board of Directors for decision-making.
Regular reports include the setting of environmental goals in March of each year, as well as a report on environmental management for the previous fiscal year in June.

Environmental Management System

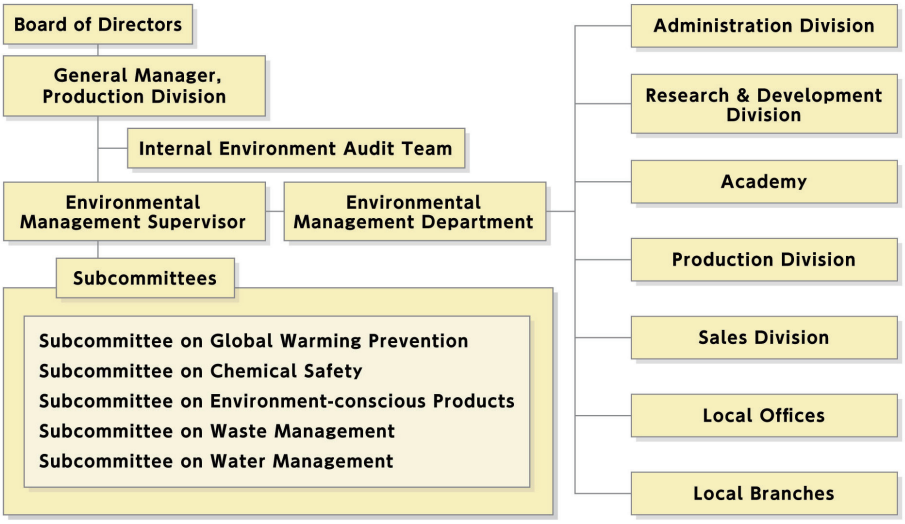
FANUC has acquired certification for the international standard for environmental management systems ISO 14001 (2015 version).
In August 1999, the entire FANUC organization was granted ISO14001 certification, with the registered range being those activities related to FA, ROBOT, and ROBOMACHINE products (including research and development, manufacturing, and sales & service). This not only covers Headquarters (Yamanashi) but also the Tsukuba Factory, Hayato Factory, and each of Hino, Nagoya, Osaka, Hokkaido, Tsukuba and Kyusyu branches and offices. In fiscal 2018, our Mibu Factory was also included.
This environmental management system applies to every FANUC site in Japan, and also to the employees, factories, premises, buildings, facilities, corporate activities and environmental conservation activities related to the products and services offered by FANUC's domestic group companies.

Scope of Application of Environmental Management System



Organization and Structure

With the General Manager, Production Division serving as the chair, we hold ISO14001 meetings once a year, consisting of representatives of related divisions, to determine activity plans and review activities. Important matters at ISO14001 meetings are reported to the Board of Directors.



Internal Environmental Audit

FANUC conducts internal environmental audits of all divisions every year. The purpose of these audits is to confirm that the environmental management system conforms to ISO14001 standards and is being appropriately implemented and maintained. To ensure objectivity and fairness, the audits are performed by auditors selected from divisions other than those being audited. In cases where nonconformities are discovered in an internal environmental audit, corrective measures are implemented.

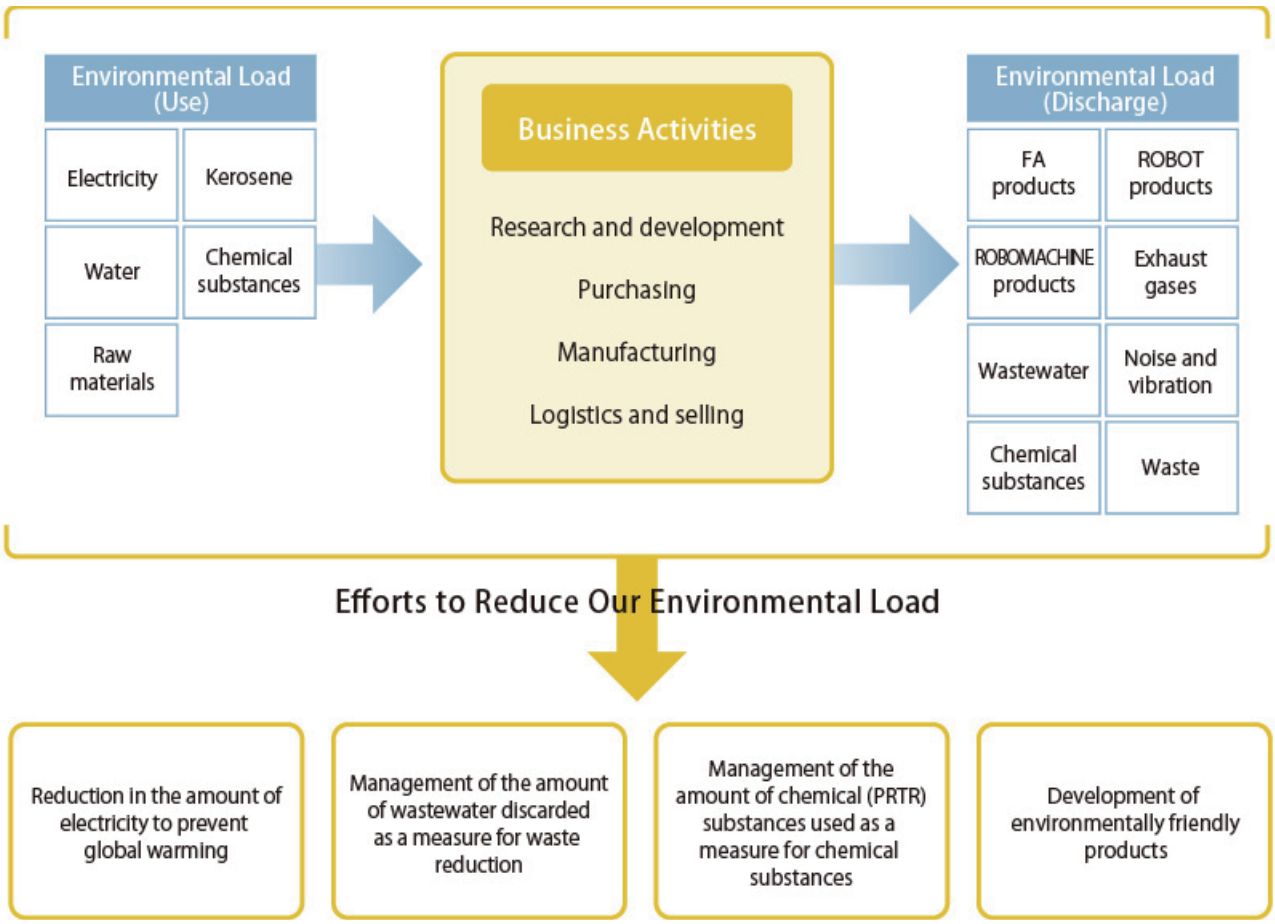
Environmental Education and Information Disclosure

To fully understand the significant environmental aspects, risks and opportunities and to minimize, control and improve the environmental load, we provide environmental training to all our employees.
New recruits, regular employees, people in charge of specific tasks, and people in charge of environmental management are educated in accordance with their respective tasks.

Compliance with environmental laws and regulations

FANUC has established a system to identify environmental laws and regulations, manage data related to both the direct and indirect impacts of our business activities on the environment, and make reports regularly.
In the unlikely event of any violations of laws or regulations, we will take swift corrective actions.
In fiscal 2023 and in the past until now, there have been no serious violations of laws or regulations, fines or civil penalties, or major spillages in relation to the environment. Furthermore, no complaints regarding environmental issues have been filed.

Overview of Environmental Impact from Corporate Activities



Mid-to long-term Environmental Targets

Item	Mid-to long-term environmental target
Amount of electricity consumption (input)	Reduce electricity consumption (purchased electricity) by 10% or more per unit of production from the fiscal 2020 level by fiscal 2030.
Freon refrigerant (discharge)	Reduce refrigerant emissions conducting regular inspections in accordance with laws and regulations by fiscal 2030.
Amount of kerosene used	Change from kerosene to city gas in the Headquarters area by fiscal 2025.
Amount of waste liquid discarded	Using fiscal 2020 as reference, identify the actual amount of waste liquid discarded in proportion to the level of production by fiscal 2025. Thoroughly conduct storage management.
Amount of PRTR chemical substances used	Using fiscal 2020 as reference, identify the actual amount of PRTR chemical substances used in proportion to the level of production by fiscal 2025. Thoroughly conduct storage management.
CO_2 absorption	Promote the switch from coniferous to broad-leaved trees by fiscal 2025.
Amount of fuel used to company-owned cars	Promote the reduction of fuel consumption of company-owned cars used for transportation between sites and buildings by using online conference tools by fiscal 2025.
Development of environmentally friendly products	Implement reduction in size and weight, power consumption, and number of service parts, while extending the product lifetime, etc., by establishing numeric targets for the end of fiscal 2025.

Environmental Targets for FY2023 and Performance

Item	Environmental target for FY2023	Performance in FY2022
Electricity consumption	The target was to limit the increase in power consumption to 13.5%, relative to the level of production compared to the previous fiscal year.	Target achieved with a 7.4% increase from the previous fiscal year's level.
Kerosene/LPG consumption	Switch to city gas in the Headquarters area.	Target achieved. 1.Switched to city gas.
Amount of discarded waste liquid	Create a feasible goal in proportion to the production level. Total storage management.	Target achieved. 1.Utilization of oil water separators. 2.Collection and reuse of cutting fluid attached to chips. 3.Use of a release agent with less waste liquid. 4.Use of cutting fluid with a long service life. 5.Utilization of distillation and regenerating equipment. 6.Emergency training for waste liquid leaks.
PRTR chemical substance usage	Create a feasible goal in proportion to the production level. Thorough storage management	Target achieved. 1.Use of cutting fluid that does not contain N,N-dicyclohexylamine. 2.Use of lead-free solder. 3.Use of an ethylbenzene-free coating. 4.Thorough storage management. 5.Emergency training for chemical leaks.
Development of eco-friendly products	For the main products, reduce size and weight, power consumption, and the number of service parts, while extending the life of those parts, etc., by establishing numeric targets	Target achieved. 1.Reduction in size and weight. 2.Reduction of power consumption. 3.Reduction of the number of service parts. 4.Improvement of operating rates. 5.Reduction of hazardous substances in parts.

Environmental Target for FY2024

Item	Environmental target for FY2024
Electricity consumption	The target was to limit the increase in power consumption to 9.6%, relative to the level of production compared to the previous fiscal year.
Freon refrigerant (discharge)	Reduce refrigerant emissions conducting regular inspections in accordance with laws and regulations.
Amount of discarded waste liquid	Using the previous fiscal year as reference, identify the actual amount of waste liquid discarded in proportion to the level of production. Thoroughly conduct storage management.
PRTR chemical substance usage	Using the previous fiscal year as reference, identify the actual amount of PRTR chemical substances used for production as compared with the level of production. Thoroughly conduct storage management.
CO_2 absorption	Promote the switch from coniferous to broad-leaved trees.
Amount of fuel used to company-owned cars	Promote the reduction of fuel consumption of company-owned cars used for transportation between sites and buildings by using online conference tools.
Development of eco-friendly products	For the main models of individual products, implement reductions in size and weight, power consumption, and the number of service parts, while extending the product lifetime of those parts, etc., by establishing numeric targets.

Performance in FY2023

Amount of Electric Power Used

Actual Reduction in the Amount of Electric Power Used

As part of our efforts to reduce our output of greenhouse gases such as CO_2 and thus prevent global warming, we are constantly aiming to reduce the amount of electric power that we use.
The power used in proportion to the level of production in FY2023 increased by 7.4% compared to the previous fiscal year's level, and we could achieve the FY2023 target.

Electric Power Reduction Measures (main measures implemented by FY2023)

1. Some machine tools in our plants were exchanged for those incorporating auto power-off devices.
2. Some of the compressors in our plants were exchanged for those incorporating inverter controls.
3. Energy-saving fluorescent lamps (with electronic ballasts) and energy-saving compressors (inverter type) were installed in new buildings.
4. The roofs of new buildings were changed to silver in color.
5. The roofs of new buildings were enhanced in heat insulation by duplicating them.
6. Power consumption was reduced with motion sensors.
7. Wind-shielding curtains were used for energy saving in air conditioning.
8. Measures were taken against heat emissions from compressors for energy saving.
9. Energy-saving measures were studied by energy-saving consultants.
10. Use of LED lighting was promoted.
11. Co-generation was promoted.
12. Power waste was reduced by preventing leakage of compressed air piping.
13. Solar panels were installed.
14. Reduction in the number of compressors.

Amount of Kerosene/LPG Used

Kerosene/LPG Reduction Results (main measures implemented by FY2023)

In some parts of the Tsukuba factory, kerosene was replaced by city gas.
In conjunction with the shift of fuel for boilers from kerosene to city gas, we removed underground tanks, which reduced the burden of legal management of the tanks under the Fire Service Act and contributed to the reduction of environmental burden such as water pollution and soil pollution through avoiding leakage of kerosene when receiving it from a kerosene truck.

Amount of Waste Liquid Discarded and Amounts of Other Waste

Waste Liquid Reduction Results

Identified the actual amount of waste liquid discarded in FY2023 in proportion to the level of production. Improved the management of waste liquid, so as to prevent environmental pollution due to spilled waste liquid.

Waste Liquid Reduction Measures (main measures implemented by FY2023)

1.Reused separated water by introducing oil-water separators

2.Collected cutting fluid attached to chips and reused it.

3.Used mold release materials with less amount of waste liquid.

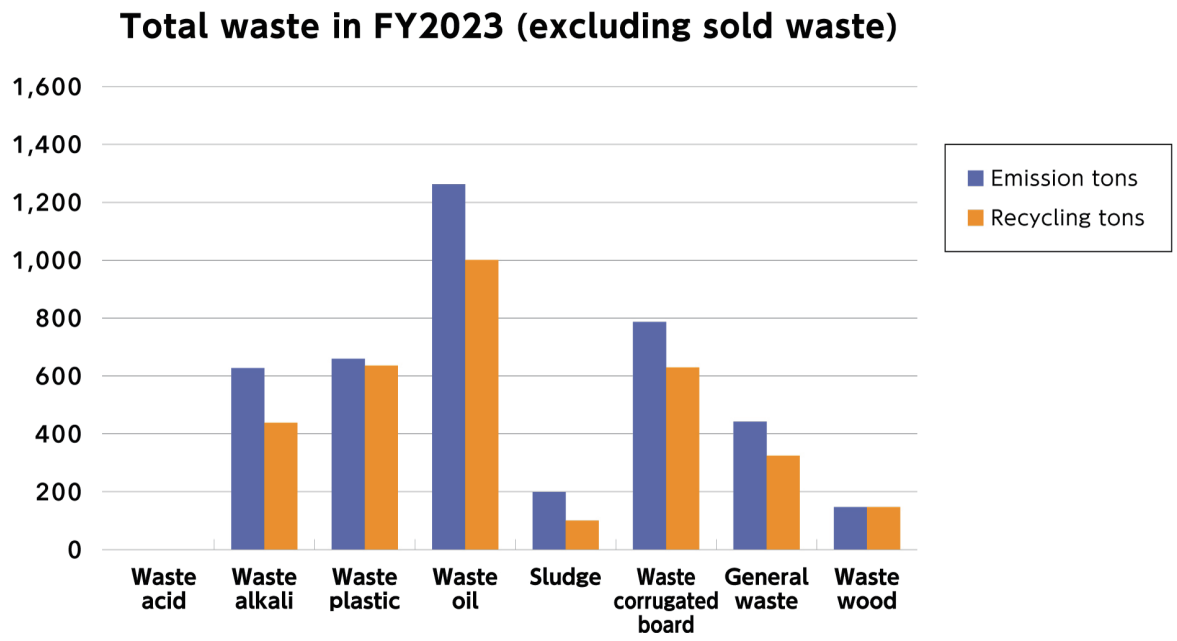
4.Used long-life cutting fluid.

5.Reused distilled water by deploying distillation and regenerating equipment.

Other Waste

Almost all waste was recycled.

We sold waste metal 21,571(t), waste plastic 54(t), and waste liquid 50(t) for recycling.



Amount of Chemical (PRTR) Substances Used

PRTR Chemical Substance Reduction Results

Identified the actual amount of PRTR chemical substances used for production in FY2023 in proportion to the level of production.
Improved the management of chemical substances, so as to prevent environmental pollution due to spilled chemical substances.

RTR Chemical Substance Reduction Measures (measures implemented by FY2023)

1. Used cutting fluid that does not contain N, N-Dicyclohexylamine.
2. Replaced HCFC 141b with other materials.
3. Used oil not containing xylene.
4. Banned the use of copper salts.
5. Banned the use of ferric chloride.
6. Used lead-free solder.
7. Used coating material containing no ethylbenzene.
8. From HCFC-225 to HCFO type (ozone depletion factor is almost zero, global warming potential is less than one, not subject to PRTR)
9. Products containing ethylene glycol monoethyl acetate (Manufacture 9) changed to non-PRTR products

Total Chemical Substance Control

In order to implement the total field control of objects stored by divisions using chemical substances, we conducted the following inspections and remedied those defects found as a result of those inspections:

1.Entry of stored objects into the ledger

2.Name indication

3.Maximum quantity of dangerous objects that can be held in the storehouse

4.Whether storage containers are free from damage and leakage.

5.Whether periodic inspections are conducted.

6.Whether protective devices are provided.

We also conducted an emergency drill assuming chemical substance leakage.

Development of Environmentally Friendly Products

The research and development divisions evaluate the environmental impact of products, set targets and develop environmentally friendly products.
The Product Development Subcommittee under the environmental management system prepares environmental management plans, and product developments are conducted based on medium- to long-term plans and annual plans.

CNC System	1.Reduction in power consumption 2.Minimizing down time 3.Hazardous chemical substance reduction
LASER	1.Reduction in material consumption 2.Reduction in power consumption 3.Hazardous chemical substance reduction
ROBOT	1.Reduction in number of service parts while extending product lifetime 2.Reduction in size and weight 3.Hazardous chemical substance reduction 4.Reduction in power consumption
ROBODRILL	1.Reduction in number of service parts while extending their product lifetime 2.Reduction in power consumption 3.Hazardous chemical substance reduction
ROBOSHOT	1.Reduction in number of service parts while extending their product lifetime 2.Reduction in power consumption 3.Hazardous chemical substance reduction
ROBOCUT	1.Reduction in number of service parts while extending their product lifetime 2.Environmental load reduction after disposal 3.Hazardous chemical substance reduction

Responses to climate change

To achieve carbon neutrality, FANUC has set mid-term and long-term targets for reducing greenhouse gas (GHG) emissions and is promoting efforts to achieve them.

Targets for reducing GHG emissions

FY2050 Target	●Scope 1, 2 : Carbon neutral by FY2050
FY2030 Targets	●Scope 1, 2 : 42% reduction by FY2030 (in comparison with FY2020) ●Scope 3 : 12.3% reduction of emissions due to the use of sold products by FY2030 (in comparison with FY2020).

FANUC's GHG emissions reduction targets have been certified by the SBT initiative.

FY2030 targets are certified by the SBT (Science Based Targets) initiative.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Regarding Scope 1 and 2, part of the power consumed in the FANUC Headquarters' area, Mibu factories and Tsukuba factories will be renewable electricity, and other sites will also switch to using renewable electricity in the near future. Furthermore, solar panels will be set up, and measures to save energy will be further accelerated to reduce GHG emissions resulting from our business activities.

FANUC Headquarters
(Panoramic view)

FANUC Headquarters
(Reliability Evaluation Building)

Mibu Factories

Regarding Category 11 (Use of sold products) of Scope 3, FANUC will contribute to reducing the emissions by enhancing of energy saving features of FA, ROBOT and ROBOMACHINE products.

Promotion Framework

FANUC recognizes climate change as a critical business challenge.
At the “Sustainability Committee” chaired by the Representative Director, President, we will deliberate and make decisions on important policies and measures related to climate change, and report to the Board of Directors. Based on the reported content, the Board of Directors will supervise to check whether identification of risks and opportunities, and measures related to climate change are promoted appropriately.

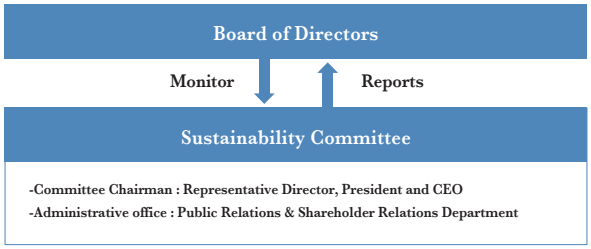
Disclosure in Accordance with TCFD Recommendations

Since the adoption at COP21 (21st Conference of the Parties to the United Nations Framework Convention on Climate Change) of the Paris Agreement, movement towards a de-carbonized society is spreading. FANUC Group with its business activities expanding around the world promotes these initiatives as we recognize climate change as a critical business challenge.
In the meantime, FANUC expressed its support for the Task-Force on Climate-related Financial Disclosures and its recommendations (hereafter, TCFD recommendations) in December 2021.
Further, we would like to utilize the framework of TCFD recommendations, and continue enhancing the quality and amount of disclosures to promote climate change initiatives still further, and contribute to achieving a sustainable society.

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Governance

FANUC recognizes climate change as a critical business challenge.
At the "Sustainability Committee" chaired by the Representative Director, President, we will deliberate and make decisions on important policies and measures related to climate change, and report to the Board of Directors. Based on the reported content, the Board of Directors will supervise to check whether identification of risks and opportunities, and measures related to climate change are promoted appropriately.



Strategy

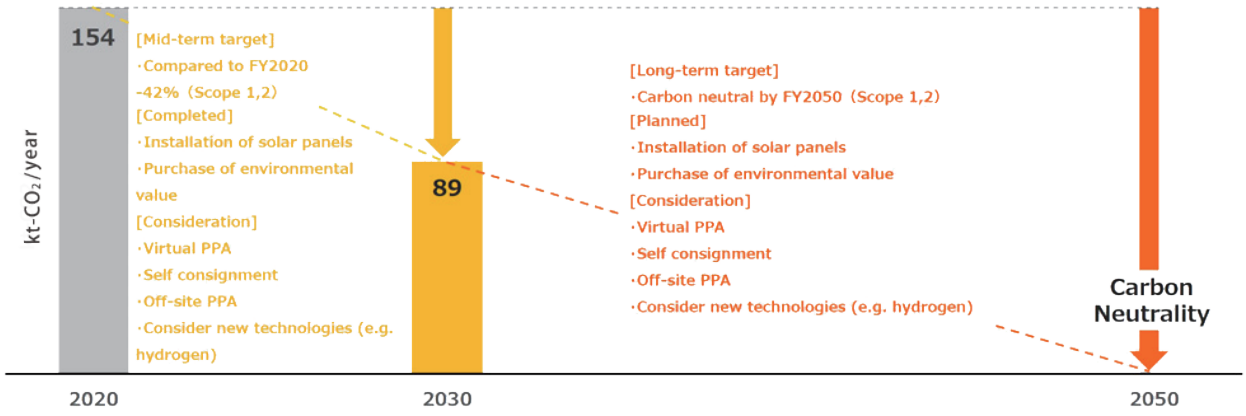
FANUC conducted a scenario analysis targeting mid-term (2030) and long-term (2050) with a 1.5°C scenario, 2°C scenario, and 4°C scenario on the FA business, Robot business, and Robomachine business to identify the risks and opportunities related to climate change, and to check how these will impact FANUC Group businesses. Regarding the scenario analysis, we referred to IEA NZE, IPCC RCP1.9, etc., for 1.5°C, IEA SDS, IPCC RCP2.6, etc., for 2°C, and IEA STEPS, IPCC RCP8.5, etc., for 4°C. For each scenario, we identified the risks and opportunities related to climate change, and quantitatively and qualitatively examined and evaluated the impact on the business.
Among these, we identified the following risks that will have a significant impact on the businesses: "Increase in costs due to introduction of carbon tax," "Increase in costs due to the rise in raw material prices," and "Decrease in demand for a part of FANUC products due to the consumer behavior change and shift to EV/FCV". We also identified the following opportunities: "Increase in demands for FANUC products due to energy-saving and robotization," and "Increase in demands for FANUC products due to the shift to EV/FCV."

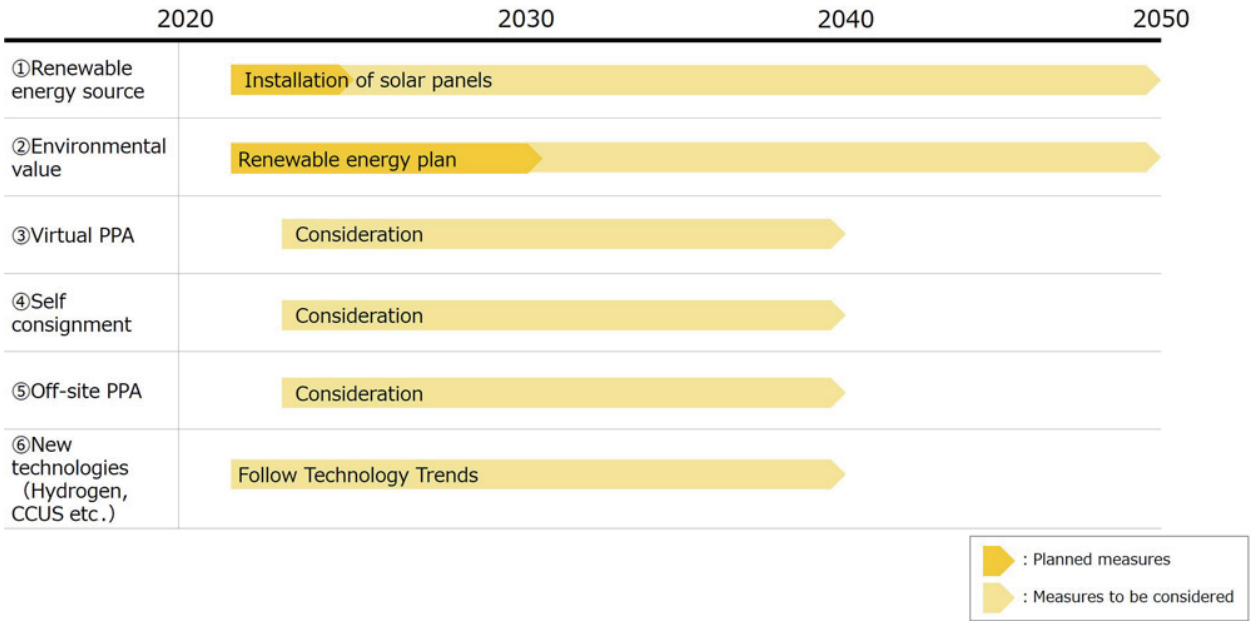
	Identified risks and opportunities	Responses to identified risks and opportunities
Transition risks	• Introduction of carbon tax will increase costs. • The rise in raw material prices will increase costs. • Consumer behavior change and shift to EV/FCV will decrease demand for a part of FANUC products.	• Set up a mid- to long-term goal for reducing greenhouse gas (GHG) emissions, and promote energy-saving and introduction of renewable energy, etc., in business activities to reduce GHG emissions. • Promote the support of business continuity plan (BCP) (Multiple production sites and suppliers, etc.) • Promote the development of products that contribute to customers' energy-saving /robotization, and well-demanded products due to the shift to EV/FCV. • Promote the development of products that can maintain high performance and high reliability under harsh operating and transportation environments.
Physical risks	• Increasing severity of natural disasters will damage production sites, etc., and as this negatively impacts production, recovery costs will increase.	
Opportunities	• Energy-saving/robotization will increase demands for FANUC products. • The shift to EV/FCV will increase demand for FANUC products. • Demand for FANUC products capable of working under harsh operating and transportation environments will increase due to the influence of rising average temperature.	

In the 1.5°C and 2°C scenario, the world is expected to undergo major social changes as it transitions to de-carbonization. There is a possibility for costs to increase due to the introduction of carbon taxes and rise in raw material prices, but we believe that we can expand the FA business, Robot business, and Robomachine business as energy-saving/robotization, and that the shift to EV/FCV will expand. The 4°C scenario does not promote low carbonization, and increasing severity of natural disasters will be expected due to climate change, such as increases in average temperature. This creates a potential increase in recovery costs as production sites, etc., will be damaged, having a negative impact on production. For these reasons, we will continue to promote the support of our business continuity plan (BCP), and deal with physical risks.
The findings of the scenario analysis on FA business, Robot business and Robomachine business rated these businesses as highly resilient in all scenarios used for the analysis. We will further promote initiatives in order to meet the challenges of identified risks and realize these opportunities in the future.

Roadmap to carbon neutrality

FANUC has set a mid-term goal (certified by the SBT initiative) to reduce its Scope 1,2 emissions by 42% from FY 2020 level by 2030, and is promoting efforts to achieve this goal.
Toward this goal, we plan to install solar panels and renewable electricity, and expect to invest approximately 9 billion yen. (Amounts are subject to uncertainties and assumptions and may differ from actual results.)

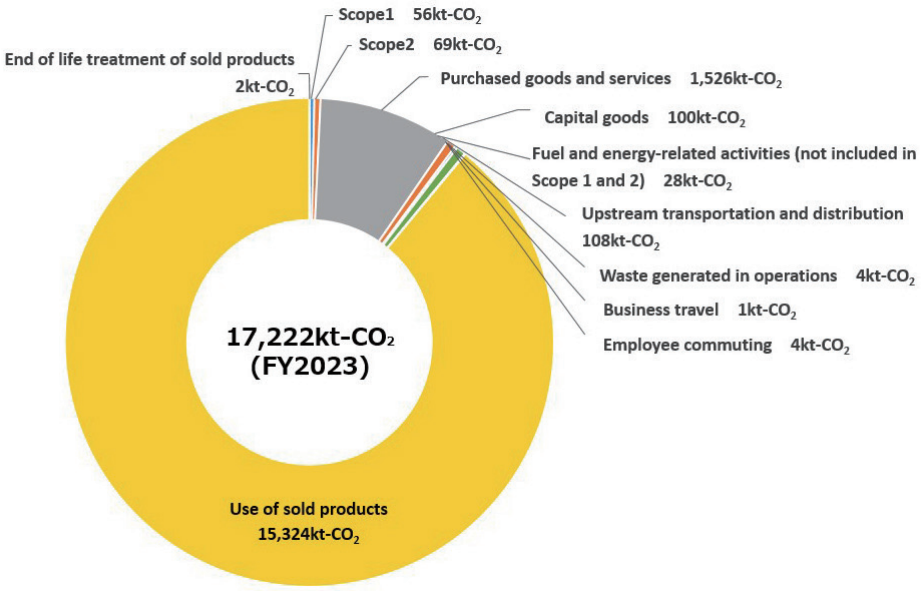




Risk Management

To address risks that may hinder the continuity of our business, the enhancement of our corporate value, or the sustainable development of our corporate activities, FANUC has established a Risk Management Committee and risk management policies, and we are conducting appropriate risk management under the supervision of the Board of Directors. The risks of climate change will also be placed in the rules, and managed.

Metrics and Targets



The FANUC Group's greenhouse gas (GHG) emissions (Scope 1, 2 and 3 Category11) targets and results are as follows:

	FY2020 Results (Standard Year)	FY2023 Results (In comparison with FY2020)	2030 Targets (In comparison with FY2020)	2050 Targets
Scope1 and 2	154 kt-CO_2	126 kt-CO_2(-18.5%)	-42%	Zero
Scope3 Category11	16,668 kt-CO_2	15,324 kt-CO_2(-8.1%)	-12.3%	-

*Regarding the third-party verification report on GHG emissions (Scope 1, 2 and 3), please see here.

FANUC has set up a long-term target of reducing GHG emissions from the business activities of FANUC Group (Scope 1, 2) to zero by FY2050. To achieve this long-term target, we have set a mid-term target of 42% reduction of the same emissions by FY2030 (in comparison with FY2020). Regarding Scope 3, we aim for 12.3% reduction of emissions due to the use of sold products(Category 11) by FY2030 (in comparison with FY2020). These mid-term targets are certified by the SBT (Science Based Targets) initiative.

Scope 1 and 2 for FY2023 were 18.5% lower than the base year.
The main reason is that a part of the electricity used in the Headquarters area, the Mibu Factories, Tsukuba Factories, etc. was switched to electricity derived from renewable energy sources. In FY2022 and FY2023, solar panels are being installed in the Head Office and Mibu area, which is expected to further reduce emissions in FY2024 and beyond.

In FY2023, emissions due to the use of sold products for Scope 3 (Category 11) were 8.1% lesser than the base year. This was mainly due to a decrease in the sales of our products. We will continue to aim for emission reductions by further improving the energy-saving performance of our FA, ROBOT, and ROBOMACHINE products.

Product Initiatives (Energy-savings)

FANUC is promoting energy saving in its products. There are two important initiatives, one is to conserve energy at our customers' factories using our products. The other is also to conserve the energy in our own factories. Considering the life cycle of FANUC products, the first initiative has a far greater effect on energy-savings. Therefore, we have long been working on developing energy-efficient products.

Development of large-capacity servo motors	We have developed a high-precision, high-efficiency, large-capacity servo motor fully utilizing our advanced digital control system. In the field of industrial machines, including electric injection molding machines, which require tremendous power, we have realized energy saving by introducing this large-capacity servo motor in place of hydraulic pressure.
Adoption of power supply regeneration system	In the servo amplifier, we use a power supply regeneration system that returns energy to the power supply when the motor decelerates. This effective use of the power supply leads to energy savings. When mounted on a ROBODRILL, it achieves a reduction in energy consumption by approximately 35% compared with the resistance-regeneration method. Furthermore, the adoption of new power devices has continuously reduced energy loss of the servo amplifier. It is reduced by maximum 35% compared to that in 1995.
Provision of the latest servo system	The newly developed α*i*-D series SERVO system has reduced loss of the entire servo system by 10% compared to the conventional products by reducing copper loss and iron loss of motors and AC reactors by adopting the above amplifier.
Power consumption monitoring function	Through the power-consumption-monitoring function, we have made it possible to monitor the amount of power consumed by our CNC systems, enabling the efficient adjustment of the cycle time. In addition, CO_2 emissions can also be displayed. By using the energy-saving level-selection function, we have made it possible to choose the type of operation: one that prioritizes cycle time and one that prioritizes power consumption. When there are differences in cycle times in the production line, in case fast processing is not necessary, choosing the power consumption priority operation contributes to energy savings for the entire factory.
Fast Cycle-time Technology	This series of functions reduces cycle time. Reducing operating time contributes to reductions of energy consumption by peripheral equipment, such as a coolant pump.
Averaging the load of power demand	Night operation using robots disperses peak power and curbs power consumption.
Reducing CO_2 emissions by reducing weight	The design of the robot mechanical arms with lighter weight also reduces power consumption. For the robots with a payload of 165 kg, the Robot S-430*i*W in 1997 weighed 1,300 kg while the Robot R-2000*i*C/165F in 2013 is lighter with weight of 1,190 kg. In addition, the collaborative robot CRX has a robot mass of 40 kg with a payload of 10 kg, which is considerably lighter than the robot mass of 150 kg common to robots in the same class thus far, and reduces power consumption. Even the LR-10*i*A/10 fully enclosed handling robots are more than 1/3 lighter than conventional robots with the same 10 kg payload, and consume 30% to 40% less power.
Optimal operating program	By optimizing the operating program with ROBOGUIDE, power consumption is reduced and the lifetime of the reducer is extended to reduce running costs.
Efficient robot utilization	Use of an autonomously moving, Automatic Guided Vehicle (AGV) with collaborative robots allows a single robot to work in multiple locations, improving the efficiency of robots. This reduces standby power, compared with installing multiple robots. In addition, the latest model of the collaborative robot CRX has a very light robot mass of 40 kg, and the AGV can also be made compact. Furthermore, the CRX can be moved on a handcart instead of on an AGV, making it possible to move the robot to the place where and when it is needed.
Instruction operation panel backlight automatically turns off	Reduces power consumption by automatically turning off the backlight of the LCD screen on the robot's teaching operation panel when no operation is performed for a certain period of time.
Energy-saving design	We have developed a new type of heavy payload robot, M-1000iA, with a serial link mechanism that is compact and has a wide motion range. Using the latest structural analysis, the M-1000iA has the necessary strength and rigidity while making extensive use of curved surfaces, at the same time, saving energy through the use of arms designed to be lightweight and power regeneration that reuses the robot's deceleration energy.
Highly reliable automatic wire feeding (AWF3)	ROBOCUT is capable of unmanned operation for long periods, thanks to the highly reliable automatic wire feeding AWF3, which can automatically recover feeding even when a wire is accidentally cut and disconnected. Stable night-time machine operation disperses peak power usage and curbs power consumption.

Discharge control *i*Pulse3	With ROBOCUTs, our newly developed discharge control *i*Pulse3 has reduced the processing time and achieved a reduction in power consumption. In addition, power consumption is reduced by inverter control of the pump and cooler, power regeneration of the discharge circuit, and reduction of standby power for various devices.
Electrification of peripheral equipment	With the additional axis option for ROBOSHOT, peripheral equipment that was previously driven by hydraulic equipment can be electrified, saving energy.
Heat insulation cover	Covering heaters of injection cylinders of ROBOSHOTs with heat insulation cover increases heat insulation effect and reduces power consumption.
Plasticization energy monitor	By visualizing the breakdown of the energy consumed in the plasticization process (melting of the resin) and the energy loss due to heat dissipation, it supports the adjustment of optimal molding conditions that reduce energy consumption.
Energy-saving functions	The ROBODRILL's sleep function reduces power consumption by turning off the servo motor, stopping the coolant and lubrication pumps while the machine is idle. Furthermore, the peripheral device and mist collector control functions make it easy to extend the same control to other devices, saving energy for the entire system.

Awards/Topics on Energy Saving

ROBODRILLs and ROBOSHOTs became eligible for a subsidy for business expenses supporting promotion of advanced energy-saving investments, allocated in FY2021 supplementary budgets in recognition of their energy-saving potential. (2021)

ROBODRILL α-D*i*B Plus Series
ROBODRILL α-D*i*B$_{ADV}$ Plus Series
ROBOSHOT α-S*i*A, B Series

ROBODRILLs and ROBOSHOTs became eligible for a subsidy for business expenses supporting businesses rationalizing energy use in production equipment, allocated in FY2019 supplementary budgets in recognition of their energy saving potential. (2020)

ROBODRILL α-D*i*B Series
ROBODRILL α-D*i*B$_{ADV}$ Series
ROBOSHOT α-S*i*A Series

Approved for subsidies for the introduction of energy-saving equipment for local factories and small- and medium-sized enterprises (2014)

ROBOCUT α-C*i*A Series

Prize of the Director General of Agency of the Natural Resources and Energy, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (2003)

For our large-capacity servo system with a power regeneration feature and precision digital control and for our large-size AC Servo Motor α*i* Series

The Minister Award of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1999)

Digital servo system using phase control regeneration and cycle time reduction, AC Servo Motor α Series

The Minister Award of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1998)

For our wire-cut electric discharge machines equipped with a high-speed automatic wire feeding mechanism and thick plate tracking control
ROBOCUT α Series

The Minister Awards of the Ministry of International Trade and Industry, Excellent Energy Saving Device Award Program by the Japan Machinery Federation (1995)

ROBOSHOT Series

Production Initiatives

FANUC will contribute to energy-savings in our manufacturing facilities.

Streamlining the assembly process	At the Hayato Factory (Kagoshima Prefecture), cleaning was previously carried out using an ultrasonic cleaning device during the assembly process of flexible cables. However, this process was eliminated by reconsidering the necessity of cleaning in order to reduce annual power consumption (by 158,976 kWh). With Wire Electrical-Discharge Machine (small and medium size), we have achieved great results in reducing assembly man-hours by sharing parts and making significant design changes such as harness unitization through repeated prototyping and design reviews.
Introduction of cogeneration system	We have introduced cogeneration systems at our Mibu Factory (Tochigi Prefecture) and Tsukuba Factory (Ibaraki Prefecture) to actively utilize waste heat. They have contributed to reduce the amount of electricity purchased and fuel consumption used for gas-fired cold/hot water generators, which eventually reduce CO_2 emissions. The estimated annual CO_2 emissions reduction by the cogeneration system in FY2022 is 1,480 tCO_2e at the Mibu Factory (Tochigi Prefecture) and 863 tCO_2e at the Tsukuba Factory (Ibaraki Prefecture).
Consideration for the environment by switching to city gas	By switching the fuel from kerosene and LPG to city gas, we are continuously aiming to reduce CO_2 emissions, and eventually to promote our BCP. Moreover, in the Headquarters area, turbo chillers and air-cooled chillers were replaced with city gas-powered chillers and hot- and chilled-water generators. In the Tsukuba Factory, kerosene-powered hot- and chilled-water generators were replaced with city gas-powered ones.
Prevention of compressed air piping leakage	Preventing leakage of compressed air piping reduces the load on the compressor and reduces electricity waste.
Reduction of air compressor pressure	To save power, we have promoted adoption of an emergency stop mode for processing machines in standby time and reduction of air compressor pressure (from 0.62 to 0.6 Mpa).
Suspension of operation of air compressors on holidays	Suspension of operation of air compressors on holidays reduces power consumption by 2,354 kWh/year or approximately 40,000 yen.
Reduction in the number of compressors	At the ROBOCUT Production Department, compressors were installed and operating in both the existing building and the extension, but we decided to carry out air piping connection work. As a result, the two compressors in the extension building were operated alternately, while the two compressors in the existing building were stopped, reducing power consumption.
Reduction of loss due to spoilage	As a result of promoting activities to reduce loss due to spoilage by prioritizing parts with high cost of loss due to spoilage, monthly loss due to spoilage was reduced, greatly contributing to the improvement of management efficiency.
Zero "rust" of machined products	We achieved zero “rust” of machined products in FY2021 by examining cutting materials and utilizing rust-preventive agents.
Reduction of power used for lighting in the workplace	As a measure to reduce power consumption of lighting in the workplace, lighting at the painting robot site was always switched off and only turned on when in use. In addition, lighting in utilities (restrooms, compressor room, and boiler room) was switched to lighting that is compatible with motion sensors. We have promoted energy saving by replacing all lighting in working areas of the Hayato Factory No.1 with LED lighting. The ROBODRILL Production Department has reduced factory electricity consumption by optimizing the lighting of night lights.
Reduction of power consumption in aluminum smelting and holding furnaces	At the injection molding factories in the Headquarters and the Mibu Mold Factory, an insulating jacket is installed on the aluminum smelting and holding furnace used in the die-casting facility to reduce power consumption by suppressing heat radiation. Over the years, the factory has also been contributing to the prevention of heat stroke and burns among workers and the reduction of air-conditioning load.

Reduction of standby power of automated warehouses for parts	To reduce standby power of automated warehouses for parts, we have turned off a crane servo system during non-operation of the warehouses, which has resulted in reducing power consumption by approximately 600 kWh/month since March 2023.
Reduction of cycle time of manufacturing components	We have continued to develop software functions that reduce cycle time of manufacturing components.
Reduction of standby power consumption	In the Sheet Metal Production Department, we have adopted a production system that concentrates production within a one-week period, completely eliminating standby power and reducing standby power consumption.
Suspension of holiday operation	For many years, the Servo Motor Production Department has operated boilers and other equipment on holidays to ensure quality. However, after verifying that there were no problems with quality control, we reviewed our operations and decided to stop operating equipment on holidays.
Space efficiency	We are promoting space efficiency through compactification to accommodate increased production in the robot assembly and testing processes, which require a large work area.
Energy-saving temperature testing equipment	In the Robot Controller Production Department, temperature testing of small controllers is now carried out on a printed circuit board basis, allowing testing to be done using small testing machines. This has eliminated the need for large testing machines, and has resulted in energy savings.

Logistics Initiatives

FANUC contributes to saving energy required for manufacturing products.

Use of truck return trips	The trucks that deliver CNC systems to machine tool builders in Japan are normally empty on their return trips. We are notifying suppliers of the availability of such empty trucks so that they can use them for parts deliveries, thereby improving the efficiency of truck operations (reducing the number of trucks) and reducing CO_2 emissions.
Container packing at our factories	In the past CNC systems for export were transported by truck from FANUC to a port warehouse, and were packed into containers in a port area. We have changed the procedure and have installed equipment to ship containers from FANUC factories, so that they can be sent directly to the packing area. This has made it possible to reduce the number of trucks by improving the container loading rate and by replacing trucks with trailers, which have a larger loading capacity.
Improving on-site logistics efficiency	Local roads surrounding our Headquarters area used to be congested by trucks to accommodate on-site logistics among the many factory buildings. By improving private on-site roads, we have reduced the use of the local roads, secured traffic routes, and facilitated logistics. In the Mibu Factory, all factories are connected by conveyors, eliminating truck-based transportation within the premises. Tsukuba Factory has eliminated the use of trucks for transport within its premises by increasing the size of the building, and connecting all robot production processes by conveyors within the same building.

Initiatives at Non-production Sites

Installation of solar power generation equipment	Solar power generation equipment has been installed in some of the buildings in our Headquarters area. In FY2022, a total of 37,600 kWh was generated from solar power. We have also installed solar power generation facilities with capacities of 1,750 kW in the Headquarters area, 2,814 kW at the Mibu Factory, 30 kW at the Mikawa Service Center, and 20 kW at the Kokura Service Center. In addition, in our Headquarters area, solar power generation equipment with a capacity of 2.4 MW is currently being installed.
LED lighting	We have converted mercury lamps and general-purpose fluorescent lamps (used in our factories and offices) to LEDs, and also replaced ceiling lights, guidance lights, and emergency lights with LED lighting. In addition to the use of LEDs, motion detectors have been installed in areas where people are not always present, such as corridors and toilets, in order to prevent unnecessary lighting. In the Mibu Factory office, the room is divided into 38 sections, and we use motion and light intensity sensors to prevent unnecessary lighting. The outside lights at the Tsukuba Factory were switched to LED, we have adopted LED lighting for two factory buildings.
Cogeneration system	We have introduced a cogeneration system in our Headquarters area, using waste heat for the welfare facilities in company housing and dormitories, as well as for the hot water supply and heating at FANUC ACADEMY. In FY2022, the estimated annual CO_2 reduction from the cogeneration system was 1,426 tCO_2e.
Building renewal	At our Osaka Branch, we have renovated the entire building, with only the framework left in place, and introduced energy-saving air-conditioners, LED lighting, and motion detectors. We have reduced air-conditioning power consumption by 60% and total power consumption by 40%.
Demand response	In response to a request from the power supply company, we conduct, so-called Negawatt Transactions, to reduce power consumption when the power supply and demand are expected to be tight.
IT infrastructure	By turning off PC monitors during breaks, estimated annual power savings is expected to total 28,800 kWh.
Enhancement of building insulation	To reduce the amount of energy used for heating and cooling, we have introduced various measures to enhance insulation, such as external and internal insulation, double-wall (double-skin) construction for external walls, condensation-proofing, and the use of double-glazed windows. Double-skin walls have been adopted in the parts center building of the Hino Branch Office and in the Nagoya Service Center. For company housing built in 2017 or later, we are working to build facilities with the aim of obtaining a rating of B+ to A (self-assessed) in the Comprehensive Assessment System for Built Environment Efficiency (CASBEE), by actively introducing external insulation and double-glazed windows.
Improvement of service efficiency	We have reduced time required for service by expediting procedures for service calls and emails with two-dimensional codes attached to end users' machines and using photos and videos.
Expansion of sale of new products with functions that contribute to environment	We have expanded sale of new products with functions that contribute to environment and promoted a shift to new CNCs.

Collaboration with Stakeholders

Collaboration with suppliers	We collect information on climate change from a total of 12 companies, composed of two manufacturing subsidiaries and 10 of our partner suppliers, whose sales to FANUC exceed 30%. We survey suppliers regarding specific items such as volumes of fossil fuel consumption, electricity consumption, and industrial waste, and provide advice as needed. In FY2023, we confirmed that there were no serious problems or risks, and that they are continuing to work on energy conservation.
Collaboration with customers	We conduct training for our customers in our training facility, FANUC ACADEMY, to explain the benefit of energy-saving to be achieved by using our products. Through this training, we also explain how to operate each product, drawing the customers' attention to energy conservation.
Collaboration with industry associations	We have participated in the deliberations of the Japan Machine Tool Builders' Association, the Japan Robot Association, and the Japan Society of Industrial Machinery Manufacturers to encourage setting of the industry target. Through these associations, we are making proposals to and cooperating with the Ministry of the Environment and the Ministry of Economy, Trade and Industry on climate change.
Collaboration with local communities and society	In response to the Tokyo Cap-and-Trade Program, which is part of the Tokyo Metropolitan Government's climate change strategy, Hino Branch Office changed its boiler fuel from kerosene to city gas in March 2006. As a result, 2,791 tons of excess reductions had been registered with the Tokyo Metropolitan Government by 2016.

Resources and Waste

Basic Approach

Under the vision of “leaving nature and resources to posterity”, FANUC promotes the efficient use of resources, and proper disposal and reduction of waste.
We will provide our lifetime maintenance for our products as long as they are used by our customers. As our customers do not need to discard older used products or purchase new models due to such maintenance service, they will eventually reduce wastes and enjoy effective use of resources.
In addition, we reduce waste and make effective use of resources in every aspect of our business activities, including development and packaging of our products and reuse of materials, as well as thoroughly managing the use of chemical substances.

Promotion Framework

FANUC recognizes addressing resource and waste management as an important issue, with the President and CEO designated as the person responsible for the related initiatives.
Important subjects relating to this management are reported to the board after discussions and summarizations in our environmental management and promotion committee meetings.

Environmental Management Promotion

Thorough management of chemical substances

FANUC uses chemical substances as raw materials in production process, but we are working to reduce the use of substances to the absolute minimum.
To ensure that our customers around the world can safely use FANUC products, we are working to comply with chemical substance management regulations in each country and region, and even voluntarily comply with stricter regulations.
FANUC conducts surveys of its business partners regarding their response to the RoHS Directive, U.S. TSCA Regulations, and substances newly added to the Substances of Very High Concern (SVHC) list under the REACH Regulation that are contained in their products.

Monitoring and managing PRTR chemical substances	We have reduced our use of chemical substances in accordance with the PRTR Act. As our measures have proven to be effective and the amount that can be reduced has become limited, since 2016, we have calculated the usage in proportion to production, rather than to the absolute amount.
Conforming with RoHS Directive	Even though FANUC products are not subject to the RoHS Directive (Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical Equipment), FANUC is voluntarily working to eliminate the use of hazardous substances. In new designs, all materials, including auxiliary materials used in manufacturing, are below the threshold dictated in the RoHS2 Directive, and we are in the process of replacing parts in existing designs.

Product Initiatives

Benefits of high-performance products	ROBOSHOT's high molding performance reduces plastic molding defects, and its function to support the automation of production setup will reduce downtime between production lots, and reduces losses of materials. In addition, we will help reduce the amount of plastic waste by increasing the yield rate when using recycled materials from plastic scraps and waste.
By designing products in small size, we reduce weight and number of components	We have reduced the use of resources for CNC by designing products in small sizes and with fewer components. We apply modular designs to standardize parts, thereby reducing the variety of procured components, as well as maintenance components.
Proper maintenance	Grease and oil can be replaced at the most appropriate time with the intelligent grease change reminder function, reducing the amount of grease and oil waste.

Production Initiatives

Reducing failure rate	We have made efforts to optimize solder printing settings and to reduce scratch defects. It has improved the failure rate of CNC equipment from 0.0073 to 0.0066 per unit. Automatization of robot assembling has enabled 24-hour continuous operation and achieved labor savings and reduction of failures arising from handling errors.
Productivity improvement	We are working to improve productivity using FANUC know-how in material processing, including unmanned operation on holidays through robotization.
Reduction of paint used	We have reduced paint waste by precisely calculating the amount of paint used per each type of paint robots.
Reduction of waste oil	We are replacing release agents for die casting machines from water-soluble ones to oil-based ones. The replacement of release agents for flanges was completed for all machines and that for rotors is currently underway. This replacement has contributed to prevention of oil dripping and reduction of the waste oil. We have adopted distillation equipment to treat water-soluble waste oil, which has resulted in reducing the amount of discharged waste oil. The Tsukuba Machining Department is reducing the amount of cutting fluid used by collecting the fluid that adheres to the parts. We are focusing on preventive maintenance and reducing the amount of hydraulic oil used.
Reduction of man-hours for unpacking	For the packaging used when transporting parts between our factories and between our factories and suppliers, we ceased to individually pack gear parts, etc. with plastic packages in cardboard boxes and adopted circulate boxes without individual packaging, which has significantly reduced man-hours for unpacking and contributed to labor savings.

Initiatives in Packaging Materials

Significant reduction in the use of steel cases	In transporting ROBOTs and ROBOMACHINEs in containers directly from a port to a warehouse, we used to pack them in steel cases before loading them into containers. However, we are now able to significantly reduce the use of steel cases by changing our packing method to utilize the containers themselves as packing cases. This means that we are directly packing ROBOTs and ROBOMACHINEs onto steel skids as much as possible.
Reducing weight and increasing density	We have changed the shipping packaging of SCARA Robots from steel skids to cardboard packaging to improve transport efficiency. We also introduced recyclable cardboard packaging for the new collaborative robot CRX. The new Genkotsu Robot model has a more compact cargo form by removing some of the links, which significantly reduces the amount of steel required to transport the robot compared to previous models. Tier stacking is now also possible, thereby improving transportation efficiency.
Saving resources	We have changed the shape of steel skids used in transporting, while maintaining their strength, to reduce the amount of steel used. We have started to consider whether it is possible to reduce the thickness of the skid steel and the thickness of the bolts for the packaging materials used for exporting ROBOTs.
Reducing use of cardboard	We have stopped using cardboard in the delivery of eyebolts from suppliers, and introduced reusable mesh pallets. This has led to an estimated annual waste reduction (paper waste) of 120 kg.
Adopting reusable shipping boxes	We have stopped using packing materials in the delivery of sheet metal covers, and adopted reusable shipping boxes with interior padding. This has led to an estimated annual waste reduction (paper waste) of 99.6 kg.

Initiatives for Reuse

Transport packaging, pallets	We also send the steel skids, which are the packing material used when importing castings, back to the foundry for reuse.
Waste liquid	We reduce the amount of waste liquid from machine tools by using waste-liquid-recycling devices. This has resulted in an estimated annual reduction of waste liquid of 852 t. At our Headquarters Factories, Tsukuba Factory, and Mibu Factory, we are promoting the reduction of waste liquid by using long-life cutting fluids. In addition, at our Headquarters Factories and Tsukuba Factory, we are reducing waste liquid by reusing the cutting fluid adhered to chips (metal chips) generated during machining. Die-casting factories in Headquarters and Mibu are promoting the reduction of waste liquid by using mold release materials.
Chips and cutting tools	We hand over chips produced during cutting at our factories, as well as cutting tools that have become unusable due to heavy wear to recyclers, so that they can be reused as raw materials.

Initiatives in Offices

Reduction of paper consumption	We reduce the use of paper by digitizing company documents. We used to send order forms and other documents for purchasing by fax, but in May 2023 we introduced a WEB-EDI system (FANUC EDI) for transmitting electronic data. This has made it possible to go paperless for order forms and other documents on the supplier side. We have also applied this function within FANUC to go paperless for some internal documents, reducing our paper consumption by about 300,000 sheets per year.
LED lighting	We promote the use of LED lighting, which does not use the mercury, lead, or cadmium contained in fluorescent lamps, etc., thereby facilitating reduction in disposal of lighting.
Converting waste into valuable resources	At the Hamamatsu Service Center, we have been working to recycle waste paper, scrap metal, and waste cables since 2023, and have been reducing the amount of industrial waste we produce.

Water

Basic Approach

FANUC Headquarters is located in the rich natural environment adjacent to the Fuji-Hakone-Izu National Park, and we use the clean and abundant groundwater of Mt. Fuji as a water source. The groundwater pumped from 80 meters below is stable in terms of both volume and quality throughout the year. We can say that FANUC is blessed with water resources, and has almost no risk of water shortages.
However, we are well conscious of the fact that, there are water shortages in other parts of the world, and the United Nations Environment Programme has reported that water shortages will become even more severe in some regions by 2025.
FANUC, therefore is working to conserve water resources, such as through daily water recycling, effluent purification treatment, and water quality management.
In order to discharge higher quality wastewater, we comply with regulated amounts of water pollutants.

Promotion Framework

FANUC recognizes addressing the conservation of water resources as an important issue, with the President and CEO designated as the person responsible for the related initiatives.
Important subjects relating to these resource conservation issues are reported to the board after discussions and summarizations in our environmental management and promotion committee meetings.

Environmental Management System

Risk Assessment for Water Resources

FANUC conducts water risk assessments at production sites using World Resources Institute (WRI) Aqueduct.

The FANUC Group's major production sites are located in Japan: the Headquarters Factory (Oshino-mura, Minamitsuru-gun, Yamanashi Prefecture), Mibu Factory (Mibu, Shimotsuga-gun, Tochigi Prefecture), Tsukuba Factory (Chikusei City, Ibaraki Prefecture), and Hayato Factory (Kirishima City, Kagoshima Prefecture).

Based on the Aqueduct analysis, there were no production sites with high water risk.

Initiatives in Our Headquarters Area

25 factories are located in FANUC Headquarters, all of which use groundwater when required for production. In addition, our factories reuse the water they have used for production for cooling and other purposes. When discharging sewage, we conduct partial purification to adjust the pH value, striving to ensure high effluent standards.

Reusing Water

Cyclical use of cooling water	We circulate and reuse the cooling water that is used to cool the production equipment in the die-cast factory at Headquarters.
Reusing wastewater	In our servo motor parts machining factories at Headquarters, we reuse 58% of wastewater by making full use of distillation and regeneration equipment.
Reusing machining liquid	In our ROBOCUT factory at Headquarters, we plan to introduce a new machining liquid tank dedicated to testing, in order to enable 90% reuse of the machining liquid (water) for testing during manufacturing.

Collaboration with Suppliers

Because water resources are used by our suppliers in the process of cooling castings and by our customers in the process of using our products and systems, indirect use of water resources is also an important issue.
FANUC, therefore, are asking suppliers to adopt our CSR Procurement Policy, and to promote the efficient use and cyclical use of water resources.
A total of twelve companies, namely two manufacturing subsidiaries and ten suppliers whose sales to FANUC account for more than 30% of their total sales, are surveyed once a year on specific matters such as water consumption and water emissions. The results are then quantified for evaluation, based on which risks are identified and assessed. We select the top three companies that are defined as significant, set specific goals for reducing the environmental load of their production, and encourage them to take steps toward those goals. In the event of significant changes in the numbers, we check the reasons for those changes and provide advice, as necessary.

Biodiversity

Basic Approach

Following on our basic vision of “leaving nature and resources to posterity”. FANUC is striving to maintain biodiversity, by preserving the stunning natural environment of 1.78 million square meters in which our Headquarters is located, adjacent to the Fuji-Hakone-Izu National Park.
Our Headquarters area is home to a variety of trees including native forests, as well as artificially planted Japanese larches and red pines, making it a treasure trove of wild birds, plants, and flowers. We will continue to take care of the forests and plant new trees, in order to protect the richness of the land around Mt. Fuji, a World Heritage Site.

Forest Conservation Activities

FANUC Headquarters is located in a stunning natural environment neighboring the Fuji-Hakone-Izu National Park. While the greening rate is specified in this area, we are striving to create a FANUC Forest that is more abundant than the designated green space rate. We maintain our forest on a daily basis, and as a result, the trees and flowers adorn the changing seasons, various wild birds and other small animals can be seen here.
When constructing factories and other buildings, we select locations with as few trees as possible, in order to minimize deforestation. Furthermore, our use of land takes advantage of the natural terrain, and we make plans that maximize conservation of the environment, such as by ensuring that the heights of buildings do not exceed the height of the surrounding trees. Since parking lots require large areas of flat land, we are currently building multilevel parking lots in order to maintain the green space rate. In the construction of parking lots started in 2016, we have completed seven parking lots, comprising a total of 92,250 square meters of floor space and 3,393 parking spaces as of 2019. These multilevel parking lots have preserved 65,300 square meters of green space.
In conjunction with the construction of a new multi-story car park, 365 medium- and low-sized trees that could be transplanted within the area were transplanted to the side of the new path within the premises.
The green space ratio for the Headquarters area as of May 2024 is 38.3%.

Plan for Forest Restoration and Conversion into Broad-Leaved Forest

Demand for timber during the wartime regime and the period of rapid economic growth encouraged the planting of conifers, so most tree plantations are now coniferous. Parts of our Headquarters are also coniferous forests that were artificially planted. Our basic policy for green space management in the FANUC Headquarters is to convert these existing planted coniferous forests into a broad-leaved forest, which is better suited to this area, over the long-term. The current coniferous forests have been planted for many years with fast-growing red pines, larches and firs, etc., which are used as sand protection forests and to satisfy demand for timber. Our aim is to convert these artificially planted coniferous forests into rich forests where small birds and animals can coexist, by changing them into evergreen broad-leaved trees and broad-leaved forests suitable for the surrounding natural vegetation that blossom, bear fruit, and drop leaves.
In order to steadily achieve this goal, FANUC is cooperating with the Yamanashi Forestry and Forest Products Research Institute. We began implementing our plan to regenerate a forest that is suitable for the natural ecosystem of the area in 2015, and have planted trees since 2016. Because it is difficult for the trees to survive, we are engaging in the effort over the long term.
Since 2021, the overgrown tall trees in the forest have made it difficult to secure sunlight to low, and medium-sized hardwoods and other trees, so we have been thinning the tall coniferous trees as needed.

Forest That Absorbs CO_2

Currently, the coniferous forest on the premises of the FANUC Headquarters is densely packed with trees, making it difficult for the sun's rays to reach the forest interior. This means that new young trees receive insufficient exposure to sunlight. With such a high density of tall trees, it will become increasingly difficult for the coniferous forest to perform its inherent function as a forest. To prevent soil degradation and maintain the forest's abundance, FANUC aims for creating a forest that can absorb more CO_2. It will achieve this aim by thinning trees to ensure appropriate tree density and deliver sunlight to the forest interior.
As stated in the Plan for Forest Restoration and Conversion into Broad-Leaved Forest, because the existing forest was artificially planted with a single species of coniferous tall trees that have become old and absorb less CO_2, we are making efforts to convert it into a mixed-species forest that includes native trees and to change gradually to original vegetation of this area. We are pursuing a plan to replant mainly evergreen broad-leaved trees (e.g., Japanese pieris and longstalk holly, which grow well on high ground), as well as cultivating deciduous broad-leaved trees that bear fruit, to create a habitat for small animals.

Conservation of Waterside Organisms

The FANUC Headquarters area has eight regulating ponds of various sizes that serve as temporary rainwater storage. Water is retained constantly in seven of these ponds and various species of waterweed, such as common reeds, blood irises, sweet flags, and skunk cabbage, are planted and protected to purify the water and create a habitat for waterside organisms. Weeding management of the ponds is conducted annually from the end of November to early December.
All regulating ponds are also weeded in summer and autumn, and the drainage outlets are managed as needed. Other works, such as status checking, inspection, repair, and cleaning are performed after typhoons and heavy rainfall.

Conservation of Rare Plant Species

In the Headquarters area, the Japanese cypripedium, which is designated as a threatened species II on the Red List by the Ministry of the Environment, grows wild. When the grounds maintenance plan affects the wild habitat, the plants are transplanted and protected.
In addition, weeding work is carried out while protecting wildflowers such as the rare species of Maianthemum dilatatum, Trillium tschonoskii, Cirsium purpuratum, and Cardiocrinum cordatum in the Headquarters area.

In the premises of our Mibu Factory in Tochigi Prefecture, the rare plant Lecanorchis suginoana, which appears in the Red Data Book Tochigi 2018, compiled by Tochigi Prefecture, has been found growing. We have put up a fence to keep them safe.

Sustainability Report 2024

Governance

Governance

FANUC recognizes that a company will last forever and be sound with “Genmitsu (Strict Preciseness)” and the corruption of an organization and downfall of a company start from a lack of “ Tomei (Transparency)”. Based on this basic principle of strict preciseness and transparency, FANUC has established a system and is endeavoring to achieve sustainable growth as a company, while striving to earn trust of stakeholders, including customers, employees, shareholders, suppliers, and local communities.

Policies

- FANUC Code of Conduct
- Corporate Governance Guidelines
- Information Security Policy
- Anti-Bribery Policy
- Tax Policy
- Guidelines for Restricting Contact with Competitors

Policies including the “Anti-Bribery Policy” are posted on the companywide portal site to inform employees.
We explain governance policies and Human Rights Policies to new employees during training at the time of joining the company, and ask them to comply with them.

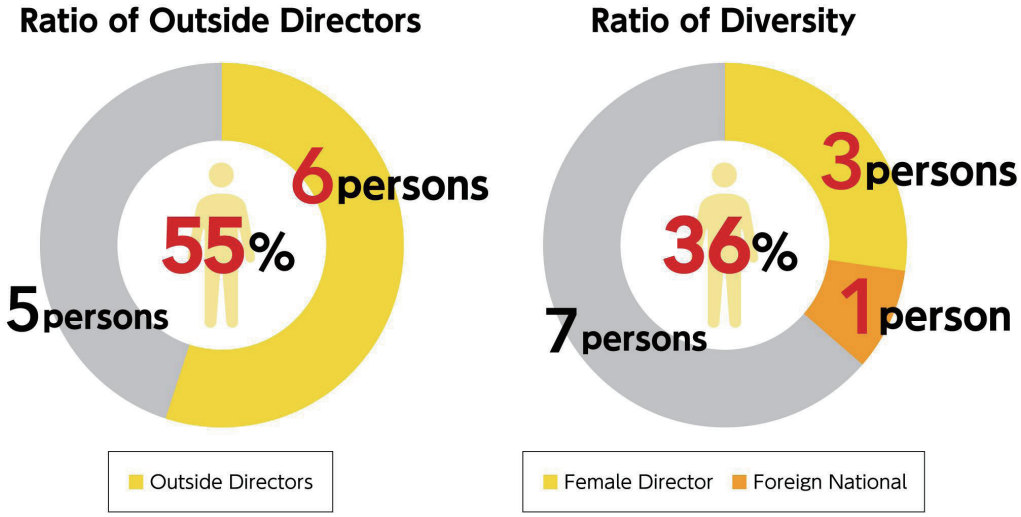
Basic Approach

FANUC has always worked on enhancing corporate governance based on our Basic Principles of “Genmitsu (Strict Preciseness)” and “Tomei (Transparency).” In 2021, as we proceed in separating our supervisory function and executive functions, in order to further strengthen the supervisory functions of the Board of Directors and speed up management decisions, we transitioned to a Company with an Audit and Supervisory Committee, which allows us to establish Audit and Supervisory Committee consisting of Directors who are Audit and Supervisory Committee Members and to expand the delegation of decision-making authority for business execution from the Board of Directors to Directors. Since then, as a Company with an Audit and Supervisory Committee, we have been working to further strengthen the supervisory function of the Board of Directors and speed up management decision-making, including by further developing related regulations.

In addition, FANUC has established the Nomination and Remuneration Committee, a majority of which comprises Independent Outside Directors, and is chaired by an Independent Outside Director. By increasing the objectivity and transparency of the appointment and evaluation of Directors, this committee ensures the strict preciseness and transparency of supervisory functions to management.

Promotion Framework and Initiatives

- As a company with an Audit and Supervisory Committee, we have separated the Board of Directors (supervisory function) from the management side (executive function) to maintain the independence of each.
- The ratio of Outside Directors and the diversity ratio of the Board of Directors are as follows.



- Three of the four Audit and Supervisory Committee Members are Outside Audit and Supervisory Committee Members, one of whom is a woman.
- We continue to periodically review the contents of the Board of Directors and the Audit & Supervisory Committee from the perspectives of whether the independence of the Board of Directors and management is maintained, whether the effects of diversity are evident, and whether discussions in the Board of Directors and the Audit & Supervisory Committee are active, and make improvements as necessary.

Nomination and Remuneration Committee

With respect to appointment and dismissal and remuneration, etc. of Directors, we have established the Nomination and Remuneration Committee, the majority of which is composed of Independent Outside Directors, and chaired by an Independent Outside Director, to secure the objectivity and transparency, etc. of procedures through consultations by this Committee.

Analysis and Evaluation of Board of Directors Effectiveness

1. Evaluation Policy

In order to provide indispensable values throughout the world and to continue to be a company that is trusted by all stakeholders, we place great importance on corporate governance and thoroughly adhere to our basic principles, “Genmitsu (Strict Preciseness)” and “Tomei (Transparency),” making every effort to further strengthen supervisory functions, expedite decisions on business execution and improve management efficiency. As part of this effort, we evaluate the effectiveness of the Board of Directors every year.

2. Evaluation Process

The evaluation for FY2023 was conducted based on insights given by external consultants for the purpose of understanding issues recognized by each director related to issues to be addressed, for example, matters deemed key to the effective fulfillment of roles and responsibilities of the Board of Directors (such as the structure and management of the Board of Directors and discussions on strategies), and also for the purpose of objectively confirming whether the Board of Directors is effectively fulfilling its role as expected by our shareholders and other stakeholders.

We also confirmed the status of its efforts to address the issues recognized in the evaluation of the effectiveness of the Board of Directors of the previous fiscal year. In the evaluation, external consultants conducted a questionnaire survey of all directors, and then based on the results of analysis compiled by those consultants, our Board of Directors conducted reporting and discussions.

3. Summary of Evaluation Results

Considering the results of analysis compiled by external consultants, the Board of Directors analyzed and evaluated the effectiveness of the Board of Directors as follows:

1. Considering the current business environment facing the Company, as it is particularly expected of our Board of Directors to “supervise execution” and “candidly express opinions and proposal and multi-dimensional discussions about, for example, issues that are key to execution and issues that are deemed important by stakeholders,” the Board of Directors was confirmed as functioning effectively with high ratings given to the fact that it is composed of a diverse group of members who are ideal for fulfilling such functions and active discussions are held, and so on.
2. In the evaluation of the effectiveness of the Board of Directors of the previous fiscal year, we recognized the following two points as issues:
   - Supervision of the performance of duties by the execution side and presentation of opinions to strengthen the organizational structure to respond to significant changes in the external environment
   - Supervision of the performance of duties by the execution side and presentation of opinions to create a corporate culture and atmosphere that respect the spirit of challenge for sustainable growth of the Company

   While our Board of Directors has positively evaluated the fact itself that improvement measures have been launched to address these issues, it has recognized that further efforts need to be made.
3. Further, through the current fiscal year’s evaluation, it has recognized the necessity to (i) have broad discussions on business strategies, looking ahead to the future and (ii) increase opportunities for discussion on strengthening human resources for sustainable growth.

Our Board of Directors will constructively address the matters stated in (2) and (3) above and aim to contribute to sustainable growth of the Company.

Directors' Remuneration

(1) Matters concerning the Policy for Determining the Details of Remunerations for Individual Directors

FANUC has established a policy for determining the details of remunerations for individual Directors (excluding the Directors who are Audit and Supervisory Committee Members; the same applies hereinafter in this paragraph) (hereinafter, “Policy”) in place as outlined below. (Resolved at a meeting of the Company's Board of Directors held on June 27, 2024)

- Fixed remunerations shall be determined according to the position of each Director.
- Performance-based remunerations shall be linked to the current net income attributable to the shareholders of the parent company as in the case of shareholder returns in principle, and paid according to evaluation standards, with 20% of the amount of performance-based remunerations reflecting non-financial indicators. “Employee Engagement”, “ESG Evaluation Score” and “GHG Emission Reduction” are applied as such evaluation standards.
- Stock-based remuneration shall be provided as remuneration of restricted stock, taking various factors, such as the degree of contribution of the Director, into consideration in a comprehensive manner.
- Remuneration for Directors comprises fixed remuneration, performance-based remuneration and stock-based remuneration whose ratios shall be set considering his/her position, responsibility, performance, etc., in a comprehensive manner.
- Remuneration of Outside Directors shall comprise fixed remuneration only.

The Policy shall be determined by a resolution of the Board of Directors.

As for remunerations for the Directors who are Audit and Supervisory Committee Members, the amount of remuneration for the individual Directors who are Audit and Supervisory Committee Members shall be determined by consultation among the Directors who are Audit and Supervisory Committee Members.

(2) Matters concerning Resolution of Shareholders' Meeting on Remunerations for the Directors

With respect to the aggregate amount of remunerations for the Directors (excluding the Directors who are the Audit and Supervisory Committee Members), it was approved at the 52nd Ordinary General Meeting of Shareholders held on June 24, 2021 that it shall be capped at the sum of (a) the fixed remuneration limit and (b) the performance-based remuneration limit specified below. Further, it was also approved that, in addition to (a) and (b), (c)stock-based remuneration may be provided to the Directors except for the Outside Directors.

(a) Fixed remunerations of 800 million yen or less annually (including 100 million yen or less annually for the Outside Directors);

(b) Performance-based remunerations of an amount equivalent to 0.7% or less of the current net income attributable to the shareholders of the parent company for the fiscal year immediately preceding the Meeting of Shareholders at which they are appointed or reappointed (but not exceeding an amount equivalent to three years of fixed remunerations);

(c) Stock compensation
The annual ceiling amount for the total amount of monetary compensation claims paid as remuneration for restricted stock is ¥350 million. The upper limit of the total number of shares of restricted stock to be allotted in each fiscal year is no more than 28,000 However, on or after the date of approval by the 52nd Ordinary General Meeting of Shareholders held on June 24, 2021, this total number of shares of Restricted Stock may be adjusted within reasonable limits if a stock split (including an allotment of the Company's common stock without consideration) or a reverse stock split of the Company's common stock takes place, or if other similar circumstances arise in which adjustments become necessary to the total number of shares of the Company's Restricted Stock to be allotted.

As of the conclusion of the Ordinary General Meeting of Shareholders, the number of Directors (excluding the Directors who are the Audit and Supervisory Committee Members) is six (6), and it is three (3) excluding the Outside Directors.

As for the aggregate amount of remunerations for the Directors who are the Audit and Supervisory Committee Members, it was approved at the 52nd Ordinary General Meeting of Shareholders held on June 24, 2021 to be capped at 200 million yen annually.
As of the conclusion of the Ordinary General Meeting of Shareholders, the number of Directors who are Audit and Supervisory Committee Members is five (5).

(3) Matters concerning Determination on the Details of Remunerations for Individual Directors (excluding the Directors who are the Audit and Supervisory Committee Members)

When reviewing remuneration standards, the Company selects benchmark companies and also refers to remuneration standards that takes into consideration results of surveys conducted by external third-party professional organizations. The Board of Directors then determines the details of the amount of remunerations for the Directors (excluding the Directors who are the Audit and Supervisory Committee Members) after consultation with the Nomination and Remuneration Committee majority of which are independent Outside Directors and chaired by an Outside Director. Since the amounts of remunerations for individual Directors are determined through such procedures, the Board of Directors judges that their details are in line with the Policy.

Frequency of Board of Directors, Audit Committee Meetings and Nomination and Remuneration Committee

- In addition to the Board of Directors meets once a month in principle, it also meets as needed. (The Board of Directors held a total of 12 meetings in FY2023)
- Attendance of individual Directors at meetings of the Board of Directors and other meetings is as follows (FY2023).

	Board of Directors meetings	Audit and Supervisory Committee	Nomination and Remuneration Committee
Yoshiharu Inaba	12 of 12	-	4 of 4
Kenji Yamaguchi	12 of 12	-	4 of 4
Ryuji Sasuga*2	10 of 10	-	-
Michael J. Cicco	12 of 12	-	-
Kazuo Tsukuda*1	2 of 2	-	1 of 1
Naoko Yamazaki	12 of 12	-	4 of 4
Hiroto Uozumi	12 of 12	-	4 of 4
Yoko Takeda*2	10 of 10	-	3 of 3
Katsuo Kohari*1	2 of 2	2 of 2	-
Katsuya Mitsumura*1	2 of 2	2 of 2	-
Toshiya Okada*2	10 of 10	11 of 11	-
Yasuo Imai*1	2 of 2	2 of 2	-
Hidetoshi Yokoi	12 of 12	13 of 13	-
Mieko Tomita	12 of 12	13 of 13	3 of 4
Shigeo Igashima*2	10 of 10	11 of 11	-

(Notes)

1.Kazuo Tsukuda, Katsuo Kohari, Katsuya Mitsumura, and Yasuo Imai retired at the 54th Ordinary General Meeting of Shareholders of June 29, 2023, hence why his attendance record and number of meetings held differs from those of other directors.

2.Ryuji Sasuga, Yoko Takeda, Toshiya Okada, and Shigeo Igashima were newly appointed at the 54th Ordinary General Meeting of Shareholders of June 29, 2023, hence why his attendance record and number of meetings held differs from those of other directors.

Internal Control System

Basic Approach

Based on the FANUC Code of Conduct, which is derived from the basic principle of “Genmitsu (Strict Preciseness)” and “Tomei (Transparency),” we have established basic rules for compliance. In addition, we have established detailed rules for compliance and deployed them internally through rules for an anti-corruption including bribery, the prevention of insider trading and the management of confidential information, the Antimonopoly Act, and rules for the protection of personal information, etc.

Promotion Framework and Initiatives

Whistleblowing System

FANUC has established a system under which officers and employees of FANUC and its domestic subsidiaries as well as other stakeholders including suppliers, can make whistleblowing reports, either under their own names or anonymously, to FANUC's internal and external contacts.

In addition, FANUC has established a global whistleblowing system whereby officers and employees of overseas subsidiaries can make whistleblowing reports directly to FANUC through an external point of contact.

In response to whistleblowing reports from both Japan and overseas, we strive to enhance the protection of whistleblowers (including confidentiality of the contents of the whistle-blowing), so that they are not subjected to any disadvantageous treatment such as retaliation including dismissal by the Whistleblowing System Operation Rules, etc.
Whistleblowing reports can be made anonymously at any time (24/7), and are available in multiple languages.

Risk Management Committee

To address risks that may hinder the continuity of our business, the enhancement of our corporate value, or the sustainable development of our corporate activities, we have established a Risk Management Committee and risk management policies, and we are conducting appropriate risk management under the supervision of the Board of Directors. Further, the Internal Audit Department, which reports directly to the President and CEO, conducts internal audits of risk management.

Compliance

FANUC have set up the Compliance Committee responsible for planning and performing activities to enhance compliance by FANUC and FANUC group companies. We have also provided education to employees and taken measures to strengthen internal control.

Further, the Internal Audit Department conducts business ethics audit including Anti-Bribery and Corruption at FANUC CORPORATION and its all group companies in Japan and overseas on an annual basis.

Employee Awareness and Training

We post various policies and guidelines on our company-wide portal site, and we are working to foster compliance awareness through awareness-raising and educating activities by providing various types of training.
In addition, we regularly conduct the following compliance training for officers and employees. Training is also implemented for part-time employees and contractors as appropriate.

- Whistleblower Protection Act
- Confidential information management (Unfair Competition Prevention Act)
- Insider trading regulations
- Regulations on bribery of public officials, etc. (for Japanese public officials, etc.)
- Regulations on bribery of public officials, etc. (for overseas public officials, etc.)
- Act on Prohibition of Private Monopolization and Maintenance of Fair Trade

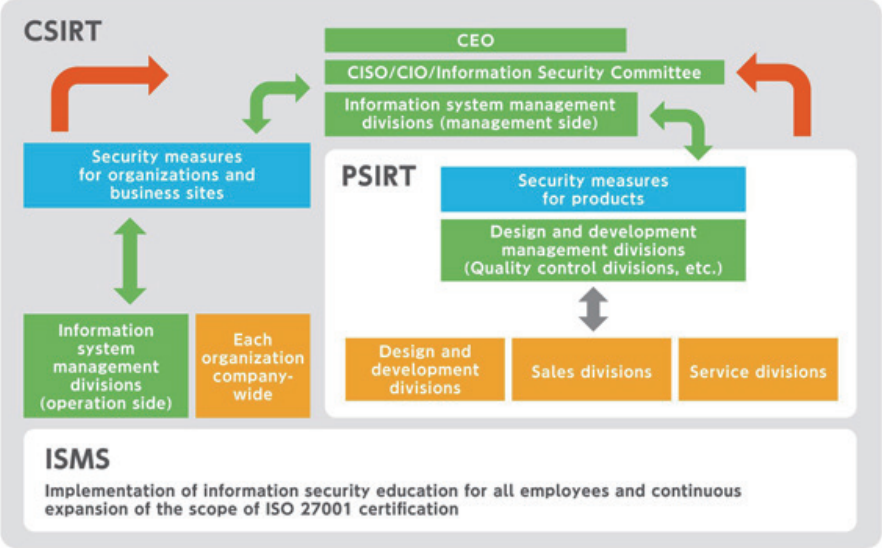
Information Security

Basic Approach

Under "Corporate Governance Guidelines," "FANUC Code of Conduct," "Privacy Policy," and all of which have been announced as its governance systems, FANUC protects important information assets and makes efficient and effective use of them in compliance with laws and regulations, rules, contracts, and other requirements.

Promotion Framework

The Information Security Committee, under the leadership of the Chief Information Security Officer (CISO) and the Chief Information Officer (CIO), was newly established in December 2019 as an information security system to control and manage information security activities.



CSIRT/SOC

- Ensures the stable supply of our products and services to customers by giving instruction on how to promptly respond to information security incidents caused by cyberattacks (analysis of the type of cyberattack/impact on business, interim/permanent responses) and providing a swift resolution.
- Prevents information security incidents from occurring by collecting information on vulnerabilities, sharing such information within the company, and understanding and controlling the status of response to vulnerabilities.

Establishment of PSIRT

We are currently working on the establishment of the FANUC PSIRT (Product Security Incident Response Team), which is designed to, as an engine for the realization of the Cyber/Physical Security Framework (CPSF) formulated by the Ministry of Economy, Trade and Industry which we aim for, contribute to ensuring security of FANUC products by indicating how to prevent security risks in business and promoting security activities involving customers and other stakeholders inside and outside the company in an efficient and sustainable way.

Vulnerability Information

Initiatives

Recognizing that risks associated with cyberattacks and other threats are priority management issues, FANUC strives to strengthen information security by appropriately allocating resources to cyber security measures, under the initiative of the management.

Declaration of Cyber Security Management

In support of ”Declaration of Cyber Security Management 2.0” updated by Japan Business Federation in October 2022, we have developed ”FANUC Declaration of Cyber Security Management” to reinforce our cyber security measures actively taken at the initiative of the management.

- FANUC Declaration of Cyber Security Management (in Japanese)

Acquisition of ISO 27001 Certification (ISMS activities)

Under “Corporate Governance Guidelines,” “FANUC Code of Conduct,” and “Privacy Policy,”all of which have been announced as our governance systems, we have established and implemented an information security management system and a basic information security policy in order to ensure the protection of important information assets and the efficient and effective use of them in compliance with laws and regulations, rules, contracts, and other requirements.

IS656789 /ISO 27001
Corporate Administration Division, Research & Development Division, Sales Division (Headquarters),
Products Manufacturing Division and Products Management Division.

December/2016: Research & Development Division acquired ISO27001
December/2017: Sales Division (Head Office) acquired ISO27001
December/2018: Corporate Administration Division acquired ISO27001
December/2019: FA Products Manufacturing Division and Products Management Division of Headquarters acquired ISO27001
December/2021: Products Manufacturing Division of Headquarters acquired ISO27001
December/2022: Products Manufacturing Division of Tsukuba and Mibu acquired ISO27001
December/2023: Products Manufacturing Division of Hayato acquired ISO27001

Information Security Training

1.We believe that the most important information security measures are to improve employee knowledge of information security and to inform them of the procedures to be followed in the event of an incident, and we conduct annual information security training(e-Learning) for employees.
In addition, we conduct training for targeted email attacks, which are becoming more common.

2.FANUC considers information security measures at domestic and overseas affiliates to be important in light of the recent increase in attacks on supply chains. FANUC conducts annual information security training for these companies.

Intellectual Property

Basic Approach

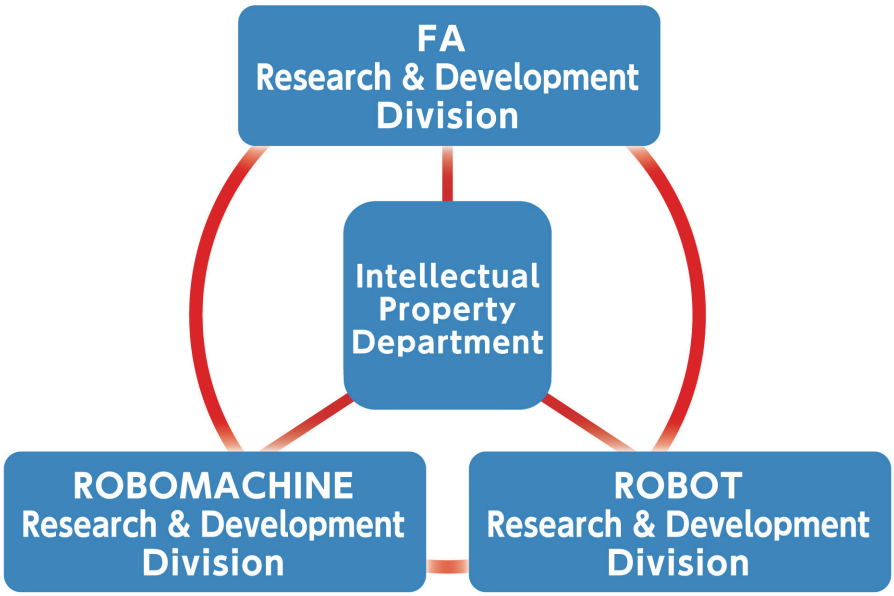
FANUC strives to acquire global intellectual property rights with the aim of protecting the technologies and brands of our own products, while also respecting the intellectual properties of third parties.

Policy

Focusing on our manufacturing and sales locations in Japan and overseas, we aim to obtain global intellectual property rights, including patent and design rights related to the technologies in our own products, as well as trademark rights related to our product brands. Based on this approach, we will build a strong patent network.

Promotion Framework

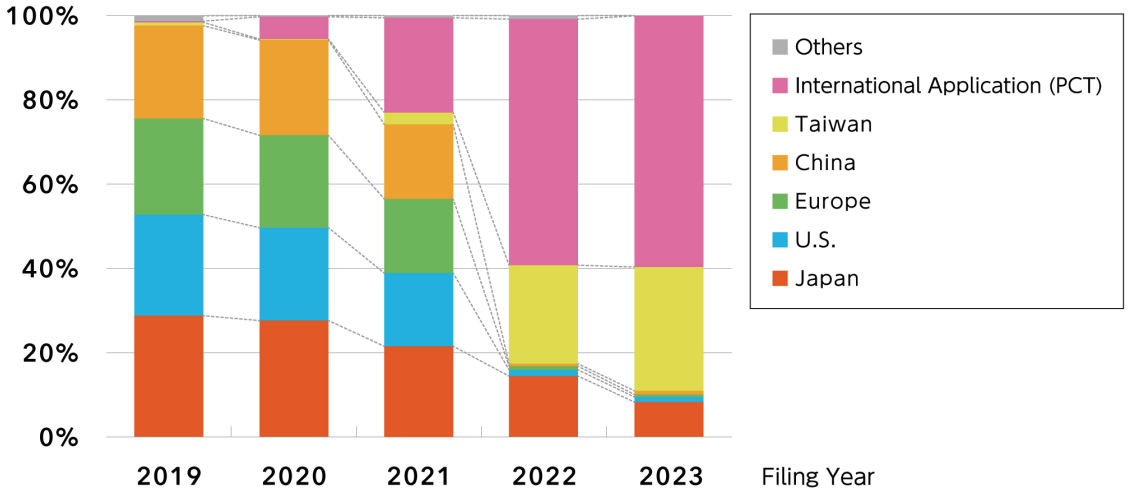
To promote and support the R&D operations of our three R&D Divisions and one Administration Division, the Intellectual Property Department and IP officers in each R&D Division work together closely on various intellectual property-related activities, such as creating inventions and filing applications.



Initiatives

Global patent applications

- For patents, in anticipation of the further globalization of our business in the future, we will switch from obtaining international rights with a particular focus on the United States, Germany, and China, and promote global rights acquisition.



Thorough research of other companies' patents

- To prevent infringements on the rights of other companies, the entire company conducts thorough research on other companies' patents.

Intellectual property education for employees

- Every year, we conduct a range of intellectual property education programs for employees to promote and support research and development that is conscious of the prevention of infringement of other parties' rights and of technology and brand rights acquisition related to the Company's products.

Invention Reward and Award Program

- For inventions, devices, and designs made by our employees, we ensure that reward payments are made at the time of registration in accordance with our in-house rules for handling inventions, devices, and designs. In addition, we also offer the same rewards for confidential inventions. Furthermore, every year, among inventions, devices, and designs that have been registered for 5, 10, and 15 years, we evaluate those that have made a significant contribution to the Company's business performance, and we offer awards and reward payments at our Company's Anniversary Ceremony. By enhancing this Invention Reward and Award Program, we work to motivate employees involved in research and development.

Awards for Intellectual Property Activities

Sponsoring Organization	Award Name
Japan Patent Office, Ministry of Economy, Trade and Industry	Intellectual Property Achievement Award - Award for Excellent Corporation Utilizing the Intellectual Property Rights System (Open Innovation Promoter) (2019)
Clarivate Plc.	Derwent Top 100 Global Innovators 2024 (2012, 2013, 2022, 2023, 2024)

Tax Policy

FANUC CORPORATION and its domestic and overseas subsidiaries ensure the practice of “Genmitsu (Strict Preciseness)” and “Tomei (Transparency),” FANUC's principle. In terms of tax affairs as well, we comply with laws and regulations and pay taxes appropriately.

Global Tax Position and Minimization of Tax Risks

FANUC CORPORATION and its domestic and overseas subsidiaries pay taxes appropriately, in compliance with tax regulations and relevant laws and regulations in their respective countries. Further, we do not use tax havens for the purposes of tax avoidance.

Transfer Pricings

Prices for international transactions between FANUC CORPORATION and its overseas subsidiaries are compliant with the Transfer Pricing Guidelines published by the Organization for Economic Co-operation and Development (OECD), in consideration of laws and regulations in respective countries as well as functions and risks, thereby ensuring appropriate tax payment in the countries.

Relationship with Tax Authorities

FANUC CORPORATION and its domestic and overseas subsidiaries strive to build a relationship of trust with tax authorities by providing them with information and explanations appropriately and conscientiously.

Communication with Shareholders and Investors

Information about dialogue with shareholders in FY2023

Main personnel carrying out dialogue with shareholders

CEO (times): 4 results briefings, 22 individual meetings
CFO: 60 individual meetings
Public Relations / Shareholder Relations Dept.: 72 individual meetings

Overview of shareholders with whom dialogue was held

Domestic / Foreign (people)	Domestic	192
	Foreign	72
	Total	264
Areas of responsibility of counterparties (people)	Fund manager	99
	Analyst	121
	ESG	16
	Voting	9
	Other	19
	Total	264

Main topics of dialogue and items of interest to shareholders

Business

- Economic trends, business environment
- Medium- and long-term targets
- Targeted profit margin level
- Production capacity expansion plans

ESG

- Carbon neutrality initiatives
- Employee engagement and diversity initiatives
- Board diversity
- Executive pay linked to sustainability

Financial and capital policy

- Holding level of cash and cash equivalents
- Cost of Capital and ROE

Feedback of shareholders' views and concerns to management and the board of directors

Reported on the contents of the dialogue to management on a regular basis, and reported on the opinions and concerns raised by shareholders during 2023 at the Board of Directors' meeting in March 2024.

Actions taken based on the dialogue and feedback

- Executive pay linked to sutainability was discussed at the Nomination and Remuneration Committee in May 2024, and the Board of Directors resolved to introduce in June 2024.
- Diversity & Inclusion Project launched to improve employee engagement.

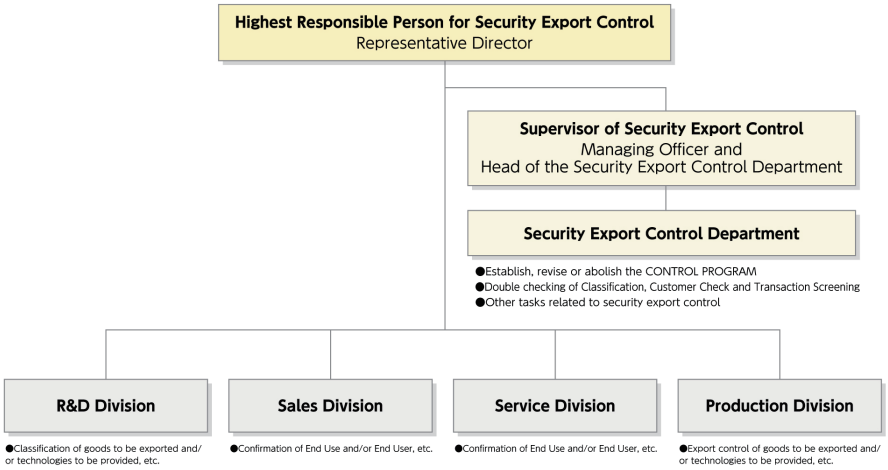
Security Export Control

Policy on Security Export Control

FANUC is implementing appropriate security export controls in order to contribute to the realization of a sustainable society while pursuing the enhancement of corporate value.
In accordance with the FANUC Security Export Control Program, we have established a security export control system and conduct strict security export control to ensure that our products and services are not used in transactions aimed at developing weapons of mass destruction or excessive accumulation of conventional weapons, and we comply with export control-related laws and regulations such as the Foreign Exchange and Foreign Trade Act.
We also strive to reduce the risk of violations related to these regulations by implementing export controls that take into account the re-export regulations of the United States, the laws and regulations and economic sanctions of the countries in which our overseas group companies are located.

Security Export Control System

At FANUC, Representative Director, President and CEO serves as the Chief Security Export Control Officer, and the person in charge of security export control has been appointed. The Security Export Control Department is responsible for overall operations, and has established a system to ensure that security export control operations are carried out appropriately and independently of the sales divisions and other divisions.



Security Export Control Screening

When FANUC exports goods or provides services, it strictly checks whether the items customers intend to purchase are subject to export controls, and whether they will be used for purposes that threaten the peace and security of Japan or the international community.

Specifically, we provide products after conducting checks including the following: determining whether the product falls under the list restrictions of the Foreign Exchange and Foreign Trade Act; screening the customer's business details; screening the transaction to verify the product's intended use; applying for permission from the Ministry of Economy, Trade and Industry as necessary; and managing shipments to verify the product's identity before delivery to prevent incorrect shipments.

Security Export Control Training

FANUC provides security export control training for directors and employees of the Company and all group companies. We are also focusing on the use of e-Learning and other methods to improve coverage and efficiency.

Security Export Control Audit

Regarding auditing, the Internal Audit Departmentat the head office conducts internal audits of the Company's divisions in charge of export, etc., and its subsidiaries and affiliates to confirm that security export controls are properly implemented in accordance with the law. If any problems are identified during internal audits, the Company requires the relevant departments to submit improvement plans and then monitors the status of implementation.

FANUC CORPORATION

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SUSTAINABILITY REPORT 2023