SUSTAINABILITY REPORT

FA&ROBOT&ROBOMACHINE

FANUC

CONTENTS

FANUC official website “Sustainability information" page is compiled in PDF.

General

Message from the President, CEO and CIO ····3
Basic Principles / The Three Philosophies ····4
Materiality ····5
ESG Promotion Framework ····6
Dialogue with Stakeholders ····7
Coordination with External Initiatives ····8
Preventive Measures Against COVID-19 ····9

Contribution to SDGs

Business and SDGs ····13
FA Business ····14
ROBOT Business ····15
ROBOMACHINE Business ····16

Social

With Our Customers ····20
With Our Employees ····36
Respect for Human Rights ····46
With Local Communities ····48
Supply Chain ····50

Environment

Promotion Framework ····57
Climate Change ····64
Resources and Waste ····71
Water ····75
Biodiversity ····76

Governance

Anti-Bribery Policy ····80
Corporate Governance ····81
Internal Control System ····82
Cyber Security ····83
Intellectual Property ····84
Tax Policy ····85

Sustainability Information Guidelines Referenced

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

Sustainability Report 2020

General

FANUC strives, through tireless technological innovation, to provide indispensable value globally in the factory automation domain.
We will continue to be a company trusted by all stakeholders, while contributing to the solution of issues surrounding the global environment and society through our business activities.

Message from the President, CEO and CIO

Offering Value to Customers and Social Responsibilities

The idea that companies should also bear social responsibilities is said to have originated in the United States in the 1920s, when companies became larger and their impact on society grew stronger. I believe it was in the 1970s, when society was awoken to the problem of pollution, that this concept became a reality for Japanese companies. Since then, repeated scandals and global climate change have presented new challenges, and the scope of corporate responsibility has expanded beyond society to include consideration for the environment.

I feel that, with this expansion of responsibility, companies' attitudes have changed from a passive stance of reacting to criticism to a more proactive approach, in which they actively seek to contribute to society and environmental conservation. The SDGs, which have become much talked about in recent times, cannot be achieved unless companies are proactive about fulfilling their responsibilities as members of society

In such a business environment, I mentioned in our Sustainability Report 2019 that I wanted to communicate in more transparent ways the sustainable development that FANUC has been pursuing. The basic principles of "Strict Preciseness" and "Transparency" that FANUC has cultivated since its foundation include our responsibility to society as well as our contributions to the environment. Our desire to make the principles widely known in more transparent ways lies behind the publication of our Sustainability Report.

Today, companies are shouldering social responsibilities that include environmental conservation as well as economic responsibilities. Through our tireless efforts toward technological innovation in the factory automation domain, FANUC strives to provide indispensable value for customers and society. We hope to be a company that will always retain the confidence of our stakeholders by fulfilling our responsibilities toward society through our attitudes towards business.

On the basis of such understanding, FANUC is working hard to enhance our annual report and sustainability information. This comes entirely from our belief that communicating in more precise and transparent ways will boost our growth as a company.

It is my sincere hope that the sustainability information contained herein will continue to deepen your understanding of FANUC and serve as a source of our growth.

Kenji Yamaguchi

President, CEO and CIO

Basic Principles

"Strict Preciseness" and "Transparency" are the basic principles of FANUC.

"Genmitsu"
(Strict Preciseness)

Strict Preciseness
A company will last forever and be sound with strict preciseness.

"Tomei"
(Transparency)

Transparency
The corruption of an organization and downfall of a company start from a lack of transparency.

The Three Philosophies

one innovation fa・robot・robomachine FANUC

The three businesses of FA, ROBOT and ROBOMACHINE are unified with SERVICE as "one FANUC", to provide innovation and reassurance to manufacturing sites around the world.

Reliable
Predictable
Easy to Repair

FANUC aims to minimize downtime in all factories all over the world.

Service First

Conforming to the spirit of "Service First", FANUC provides lifetime maintenance to its products for as long as they are used by customers, through more than 260 service locations supporting more than 100 countries throughout the world.

Materiality

Materiality	Risks	Opportunities
Maintain and improve competitiveness	●The emergence of competitive products utilizing new technologies may cause our products to lose their core competence. ●Our factory may come to an almost complete stop, if a large-scale disaster happens in the area where the factory is located.	●We can maintain our superiority by developing competitive products, enhancing our services, and providing our customers with attractive products. ●Creation of new markets through the use of new technologies also introduces new business opportunities for FANUC to expand its business domain and grow. ●We have nearly finished establishing multiple production sites for our CNC (computer numerical control) systems and robots, so that we can continue to serve our customers, even in the event of a large-scale disaster.
Response to environmental issues Climate-related risks and opportunities	●Stricter environmental regulations on resource conservation led by Europe, such as reducing greenhouse gas emissions and managing chemical substance, may lead to increased costs. ●The transition from internal combustion engines to EVs powered by electric motors, driven by measures taken by the automobile industry to combat climate change, may have a major effect on the market environment for our main products in the FA business.	●We strive to provide highly dependable, high quality products that are “Reliable, Predictable, Easy to Repair” and to minimize downtime at our customers' factories by putting “Service First”. In particular, the concept of lifetime maintenance, which embodies our commitment to continue providing maintenance as long as our customers continue to use our products, has helped to reduce waste for our customers around the world. ●Leading the development of energy-saving products and products high in energy efficiency will provide opportunities to expand sales of our products in developed markets such as Europe. The transition to EVs will broaden the range of robot applications, and create opportunities to increase product sales. The number of sensors and cameras mounted to EVs will grow, and is expected to stimulate the increase in sales of ROBOSHOTs (electric injection molding machine). Furthermore, the demand for high-precision parts used in EVs and the demand for molds for EV components are both expected to increase. This will boost the demand for machine tools in this sector, leading to a higher demand for CNCs.
Shrinking labor force population	●It may become difficult to hire competent people.	●The rising need for automation in manufacturing sites also represents an opportunity to expand the industrial robot market, and will lead to the development of safe and secure work environments.
Building a governance system	●There is a possibility that correct management decisions will not be made, or that decision-making will be delayed.	●Proper decision-making will be made possible by establishing a governance system under which the roles and responsibilities of the executive bodies (the management) are separated from those the monitoring bodies (the Board of Directors).

ESG Promotion Framework

At FANUC, various committees conduct activities related to the factors of ESG, such as the environment, health and safety, and compliance, with important matters being reported to the Board of Directors.

- Board of Directors
  Approval of policies, approval of medium- to long-term targets

- Risk Management Committee
  Addressing risks that may adversely affect the business continuity, enhancement of the corporate value, or sustainable development of the business activities

- Cyber Security Committee
  Reinforcement of cyber security system

- Compliance Committee
  Checking the status of whistleblowing and discussing issues

- 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	
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 by email and chatbot. In addition, we enable customers to purchase maintenance parts thorough our membership website.
	New products open house show	Every April	Invite customers and introduce our latest products.
	Exhibitions	As needed	Exhibit at trade shows in Japan and abroad to introduce our latest products.
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.
	Organizational performance evaluation clinical system	Once every other year	Listen to employee opinions from the perspective of employee satisfaction, and use the PDCA cycle to discover and resolve issues.
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 participates in the Study Group on Establishing an Industry-Academia Collaborative Framework for Human Resource Development, held by the Ministry of Economy, Trade and Industry, and has signed a memorandum to establish CHERSI, which will develop human resources specialized in robotics.
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 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 Vice Chairman.
Japan Robot Association	FANUC is a regular member of the Association, which is an organization that encourages research and development on robots and associated system products, and promotes the use of robot technology.
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.
ROBOT Industrial Basic Technology Collaborative Innovation Partnership (ROBOCIP)	Together with Kawasaki Heavy Industries, Ltd., DENSO CORPORATION, NACHI-FUJIKOSHI CORP., Mitsubishi Electric Corporation, and YASKAWA Electric Corporation, FANUC established the ROBOT Industrial Basic Technology Collaborative Innovation Partnership (ROBOCIP) with the aim of conducting basic technological research through collaboration between industry and academia, for the enhancement of the functions of industrial robots and the facilitation of their adoption.

Academic Associations

Participation in various conferences	FANUC participates in academic societies of relevant fields to collect the latest technical information. We actively participate in the Electric Discharge Machining Phenomena Basic Research Committee of the Japan Society of Electrical Machining Engineers. FANUC regularly participates in various workshops and symposiums held by the Japan Welding Society.
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 the University of Tokyo, Tokyo Institute of Technology, the University of California, Berkeley (USA), RWTH Aachen University (Germany), Frankfurt International School, Wiesbaden Campus (Germany), and other universities to conduct joint research and exchange opinions. We also provide scholarship donations to help cultivate young researchers for the future.

Preventive Measures Against COVID-19

Basic Approach

FANUC strives to work together with our various stakeholders, including employees, customers, business partners, and shareholders. We have also implemented multiple countermeasures to ensure the safety of our stakeholders and prevent the spread of COVID-19.

Promotion Framework

We have established a COVID-19 Pandemic Control Headquarters, headed by the President, CEO and CIO, to decide on transmission prevention measures in response to requests from the national and local governments.
Various information, such as company decisions, awareness raising, and calls for caution are communicated to employees through a special page created on the internal portal website.

Initiatives

Ensuring Employees' Safety

FANUC strives to ensure the safety, jobs, and income of our employees and provide a workplace environment in which they can work with peace of mind.

- Early repatriation of employees stationed in countries with a high risk of transmission, Procurement of face masks and distribution free of charge to employees on a global scale
- Health checks for all employees of the entire company using the internet and smartphone apps (temperature/health condition/3Cs*1/attendance status), Thorough insistence that employees take leave (treated as legal holidays) if they are unwell
- Company-wide transmission prevention measures (Adoption of staggered working hours/telework/shift work, Restriction of business travel, Use of online meetings)
- Provision of special days off (treated as legal holidays) for employees who need to look after their children due to school closures or who are pregnant
- Temporary closure of welfare facilities, Awareness raising among individual employees about transmission prevention measures (Wear face masks, Maintain social distancing, Avoid the 3Cs, Wash/sanitize hands)

*1
Closed spaces with poor ventilation
Crowded places with many people nearby
Close-contact setting such as close range

Workplace Layout Changes

We are working to create safe workplaces by changing layouts and other means, to ensure the safety of our employees. Given the predictions that it will take considerable time to halt the spread of the virus, we have made improvements to ventilation in our various facilities and are taking other measures as necessary.

1. The air change volume of all rooms, including offices and other workspaces, was checked and, based on that information, the capacity of each room was calculated, and each business location was notified.
   As an immediate action in response to these notices, the business locations promptly reviewed their room capacities and made changes to workspaces, such as moving some desks to other rooms.
   As a medium term response, desk layouts were reviewed to ensure social distancing, and environments to prevent transmission through droplets were established, including installing partitions.
   Work styles were changed in ways that were conscious of the effectiveness of ventilation, with doors to private offices left open.
2. Because the smoking rooms set up to keep smoking and non-smoking areas separate are close to a 3Cs situation, all smoking areas throughout the company were moved outdoors.
3. The number of seats in the staff cafeteria was reduced and the table layout was changed, so that employees can avoid sitting directly across from each other. Staggered lunchtimes were introduced to allow employees to use the cafeteria in shifts.

Recruitment Activities during the Pandemic

For the recruitment selection process, face-to-face interviews on site at company premises were replaced by online interviews.

- For the recruitment of new graduates, in normal years, students are asked to come to company premises for a factory tour. These tours were cancelled this year and online meetings (Q&A sessions) were held in its place
- Welcome ceremony was cancelled
- Larger venues were used for group education sessions to ensure social distancing
  The venue was thoroughly disinfected, and sanitization of hands was enforced prior to entering the venue
- New employees were given a health checkup before being assigned to their respective workplaces to confirm their COVID-19 status
- Employees moving into staff dormitories were asked to take their temperature every day, even before they started working at the company
- New employees who had traveled overseas on a graduation trip or for other reasons were instructed to self-isolate at home for a certain period before starting at the company

Responses for Expatriate Employees

- Immediate temporary return to Japan at company expense
- Arrangement of transport (company bus or a chauffeur-driven hired vehicle) from airport for temporarily repatriating employees
- Assistance with daily life requirements for employees and their families who returned to Japan temporarily (company housing, furniture, home appliances, car rental, etc. provided free of charge)
- Communication as needed of information about border control measures against COVID-19 taken in Japan
- Assistance with various procedures for return to overseas business locations

Responses for Customers

Although sales activities, service activities, various training courses, and the like were restricted due to the pandemic, we enhanced remote support responses (such as molding training) to ensure that we could continue to provide support to our customers' factories amid the pandemic. In response to the new normal era created by COVID-19, we are promoting new styles of service, such as remote diagnosis and online support, as a project for service DX.

Response at FANUC ACADEMY

FANUC ACADEMY, which supports customers' technology acquisition, established an eACADEMY. The Academy developed two types of online training to accommodate the new normal - live seminars and on-demand seminars - and began offering them in June 2020. The eACADEMY, which enables customers to choose the training method that best suits their needs, eliminate the 3Cs, and study advanced content efficiently online, is truly an organization for the times. As well as current trainees, new groups of trainees have participated in its courses. On the other hand, after the lifting of the national state of emergency, which had been declared in April 2020 in the face of the spread of COVID-19, face to face workshops were resumed with thorough infection prevention measures put in place in compliance with the government policies. Thorough precautions were taken, including avoiding crowding of trainees in the classroom and providing their dedicated training machines, to give the trainees peace of mind while they were acquiring the technology.

Responses for Supply Chain

Due to the impact of COVID-19, from around February 2020, various complications emerged, such as the closure of our suppliers' production factories and delays in deliveries caused by disruptions to distribution. These complications made it difficult to obtain parts that we had been procuring from certain parts of China. The impact was not limited to China, later extending to the Philippines, Malaysia, and the entire world, making it difficult to obtain many parts. FANUC immediately set up the Disaster Response Team comprising members selected in advance from the Research & Development Division, Manufacturing Department, and Purchasing Department, and responded to this problem on a company wide basis. Various measures were taken, including identifying those parts that were most difficult to obtain, confirming procurement from second suppliers, adopting and confirming alternative parts, and avoiding delivery delays by switching the manufacturing processes at company factories. As a result, we have been able to maintain a stable supply of our products to our customers.

Responses for Business Partners

In normal times, meetings and negotiations with business partners would take place in person at their premises, but these are currently conducted online, removing the need for staff to move around by car or train. In terms of buildings and facilities, workers from construction and installation companies attending our facilities to inspect and repair equipment and machinery were asked to have their temperature checked and to confirm their health status. When the national state of emergency was declared, we temporarily suspended all construction work in progress.

Education and Training in the Service Division

The Service Division conducts education and 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 education and cultivation of our service personnel.
In addition, we strive to further improve customer satisfaction by giving consideration to personal appearance, behavior and manner of speaking, based on the Service Engineer Code of Conduct.

In fiscal 2020, due to the impact of COVID-19, we were unable to conduct our usual introductory training for new employees in accordance with the group education plan.
Instead, we provided all new employees assigned to the Service Division with a tablet and laptop computer immediately after they joined the Company, and they undertook a learn-from-home program online in the staff dormitory or other residence.
We provided our new employees with basic knowledge by sharing with them the e-learning content produced by FANUC ACADEMY and other resources prepared in-house by the individual departments.
Similarly, in terms of technical education for service personnel in Japan, we conducted online education by connecting FANUC Headquarters and the various service locations throughout Japan.

Contributions and Donations to the Community around FANUC Headquarters

In 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 Medical Center.

Sustainability Report 2020

Contribution to SDGs

Contribution to SDGs

FANUC operates the businesses of FA, ROBOT, and ROBOMACHINE, as well as the IoT business that improves these three businesses. 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.

Business and SDGs

FA Business (Basic Products)

Basic products FANUC provides basic products that enable factory automation, such as CNCs, which control the operation of machine tools with numerical information, servos, which control speed and position, and laser oscillators, which are used for welding and cutting. In developing these products, we aim to improve productivity in our customers' factories with energy saving, enhanced safety, and higher performance.

ROBOT Business (Applied products)

Various tasks can be automated by applying the basic technologies of CNCs and servos freely controling robot arms. We contribute to improving work environments by releasing workers from dangerous, dirty, and difficult jobs and enhance the stability of product quality by enabling longhour, consistent, and continuous production. In addition, we contribute to the maintenance and growth of factories around the world by compensating the shrinking labor pool, such as by developing robots that can work in collaboration with humans.

ROBOMACHINE Business (Applied products)

FANUC is developing compact machining centers, electric injection molding machines, wire-cut electric discharge machines, and ultra-precision machines that apply the basic technologies of CNCs and servos. We contribute to improving the productivity of our customers by pursuing superior machining performance, operating rates, and ease of use.

Contribution to efforts to achieve 17 SDGs and 169 targets

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.

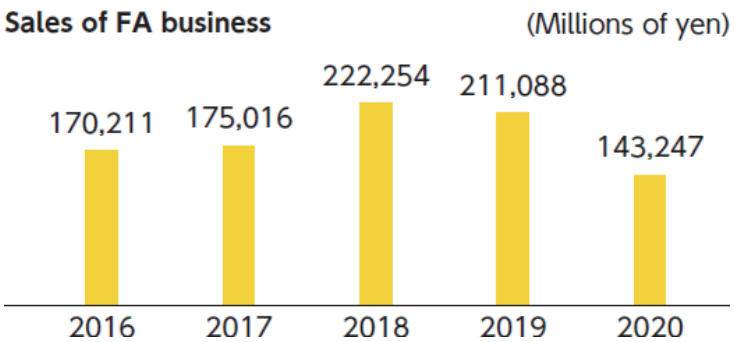
Ensuring Customer Safety

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.

Areas of contribution to environmental/social issues

- Measures to address decreases in working population and highly skilled engineers
- Improvement of customers' productivity
- Energy saving in customers' factories
- Waste reduction in customers' factories
- Improvement of work environment in customers' factories

Sales of FA business



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 exclusively targets industrial robots, instead of service, medical, or entertainment 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 maintenance and diagnosis function 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.

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.

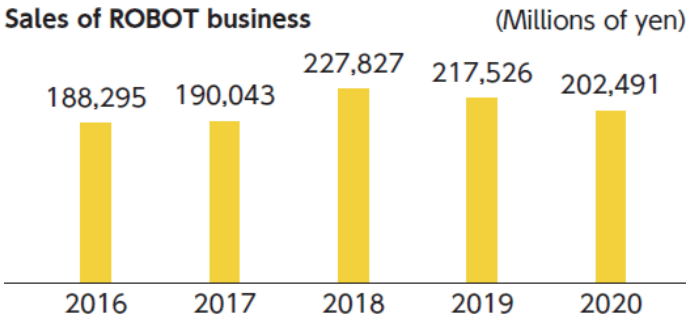
TOPIC

"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 Nikkan Kogyo Shimbun Best 10 New Products Award/Main Awa rd" and "Nikkei Sangyo Shimbun Award for Excellence in the 2019 Nikkei Superior Products and Services Awards."

Areas of contribution to environmental/social issues

- Measures to address decreases in working population and highly skilled engineers
- Improvement of work environment in customers' factories
- Improvement of customers' productivity
- Energy saving in customers' factories
- Waste reduction and effective use of resources in customers' factories

Sales of ROBOT business



ROBOMACHINE Business

- Products
  - ROBODRILLs (compact machining centers)
  - ROBOSHOTs (electric injection molding machines)
  - ROBOCUTs (wire-cut electric discharge machines)
  - ROBONANOs (ultraprecision machines)

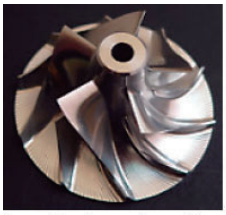
- Strengths
  - Products applied with CNCs and servos, FANUC's basic products
  - High precision performance, high operating rates, easy to use
  - Top-level global market share of ROBODRILLs (compact machining centers) (FANUC estimate)
  - Top-level global market share of ROBOSHOTs (electric injection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

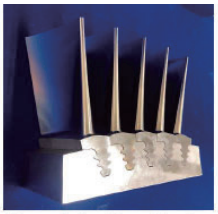
Business Overview

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 machine users. They are all highly compatible with FANUC robots. Factory automation is enhanced through the combination of ROBOMACHINEs and robots.
Machine users 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 machine users' 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 (ROBODRILL-LIN*i*, ROBOSHOT-LINK*i*, and ROBOCUT-LINK*i*).
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. ROBOMACHINE products are used in the production of medical instruments, including syringes and artificial bones, contributing to efforts to achieve a goal

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 AI thermal displacement compensation function. These features help improve machine users' 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 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.

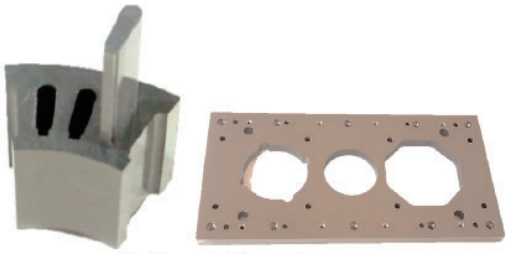

Auto headlight


Syringe

Value Created by ROBOCUTs

ROBOCUTs are wire-cut electric discharge machines, 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.

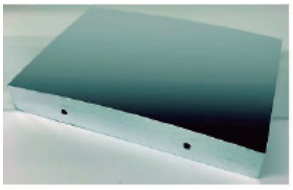
By achieving stable machining through the use of the AI thermal displacement compensation function, these products contribute to improving machine users' product quality. The automatic wire feeding (AWF3) can automatically recover feeding when a wire is accidentally cut and disconnected during machining,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



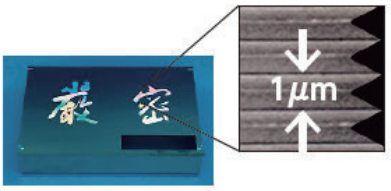
Mold parts for motor cores

Value Created by ROBONANOs

ROBONANOs are ultra-precision machines that challenge the boundaries of machining by realizing a 0.1 nm programming command, combining FANUC's latest CNC and servo control technologies. The machining and lathe types of ROBONANO address nano-level machining needs in the areas of optical electronics, clocks, biotechnology, and healthcare.



Mold for automotive head-up displays



Mold for ornamental holograms

Mold for smartphone lenses

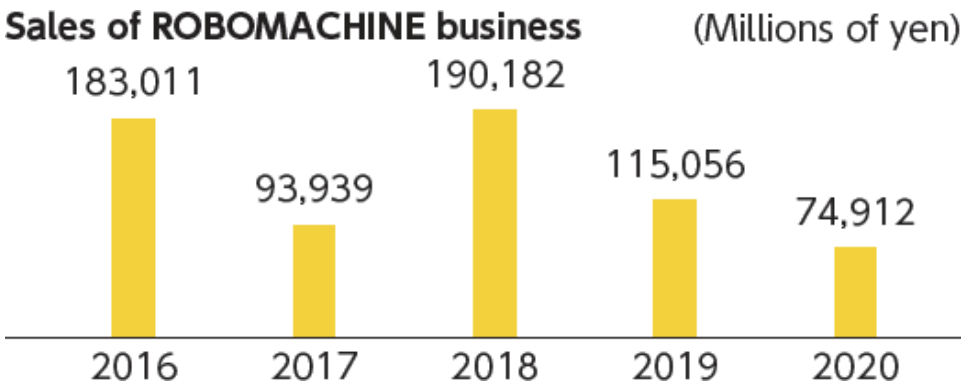
TOPIC

FANUC's contribution to the ultra-precision small plastic molded parts market through ROBOSHOTs was highly appraised, and was awarded the “2019 Okochi Memorial Production Prize” for the “development of fully electric injection molding machines for ultra-precision small plastic molded parts” from the Okochi Memorial Foundation.

Areas of contribution to environmental/social issues

- Measures to address decreases in working population and highly skilled engineers
- Improvement of customers' productivity
- Energy saving in customers' factories
- Ensuring healthy life through provision of healthcare products

Sales of ROBOMACHINE business



Sustainability Report 2020

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

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

FANUC provides highly reliable CNCs, servos, and lasers, which constitute the basic technologies of FANUC. As well as improving ease of use for machinery manufacturers, we also enhance end users' productivity by improving performance and save space by reducing the size of devices.
In addition, we contribute to improving the quality of end users' products by achieving 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 such as 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, the prior detection of program errors in machining programs can reduce the number of defects caused by machining errors in 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 largest obstacle to automating turning is the situation in which long chips generated by turning become entangled in the workpiece or tool. In addition, such long chips are difficult to discard. This function solves these issues by shredding chips mitigating problems such as damage to tools and defective machining.
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 machines is improved.
SERVO GUIDE, AI Servo Tuning	We provide our customers, the machinery manufacturers, with support tools for the easy realization of high-level tuning of parameters for the control of the servo motor. The inclusion of an AI-based tuning support function enables even unskilled operators to carry out servo tuning.
***i*HMI**	***i***HMI provides a user interface that simplifies the operations of the operator who is the actual user of the machine tool.
MT-LINK*i*	With MT-LINK***i***, 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.
Highly Reliable and Easy-to-use 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.

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.
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	Zero Down Time (ZDT) is a "predictable" function that alerts users before failure and improves productivity by reducing the downtime in factories. ZDT is connected to more than 20,000 robots around the world, and has prevented more than 1,300 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 new 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.

Awards on ROBOT Business

2019 Winner of double awards (2019): Nikkei Sangyo Shimbun Award for Excellence in the 2019 Nikkei Superior Products and Services Awards/62nd Nikkan Kogyo Shimbun Ten Great New Products Awards Main Prize

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

Zero Down Time (ZDT)

ROBOMACHINE Business

FANUC provides four product groups, consisting of ROBODRILLs (compact machining center), ROBOSHOTs (electric injection molding machine), ROBOCUTs (wire-cut electric discharge machine), and ROBONANOs (ultra-precision 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, such as the time required to change tools, 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 ROBOCUT 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.
ROBODRILL-LINK*i* ROBOSHOT-LINK*i* 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. We have also promoted paperless operations with the digitization of user manuals and other resources.
QSSR (Quick and Simple Start-up of Robotization) 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. • ROBODRILL-QSSR/LR Mate • ROBODRILL-QSSR/CR-7*i*A Support boosting of machining systems • ROBOSHOT-QSSR/M-1*i*A • ROBOSHOT-QSSR/LR Mate Support boosting of injection molding systems • ROBOCUT-QSSR/M-20*i*A • ROBOCUT-QSSR/CR-7*i*A Support boosting of wire-cut electric discharge systems

Awards on ROBOMACHINE Business

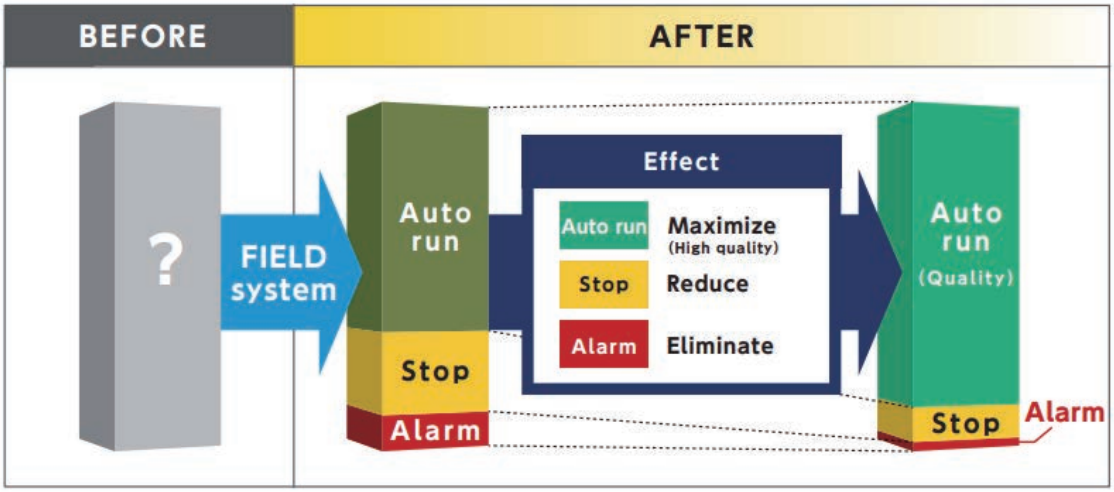
66th Okochi Memorial Foundation Okochi Memorial Production Prize (2019)
ROBOSHOT

2018 Winner of double awards (2018): Nikkei Sangyo Shimbun Award for Best Product in the 2018 Nikkei Superior Products and Services Awards/61st Nikkan Kogyo Shimbun Ten Great New Products Awards Main Prize
ROBONANO α-NM*i*A

5th (1994)/28th (2017) Japan Society of Polymer Processing Aoki Katashi Innovation Award
Development of AI Pressure Tracking Control for a Fully Electric Injection Molding Machine (1994)
Movement Detection Technology and Injection Volume Stabilization Technology for a Backflow Prevention Ring (2017)

FIELD system

The FIELD system (FANUC Intelligent Edge Link & Drive system) is an open platform for manufacturers that aims to further improve productivity and efficiency within the industry. This system increases yield, quality, and output through the visualization of factories, thereby contributing to the maximization of our customers' revenue.
The FIELD system offers an SDK (Software Development Kit), so that third-party developers can also freely develop and sell application software and converters for devices. The design guide of the SDK provides a comfortable development environment with constant surface speed (CSS) that integrates universal design.



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 press machines, which require tremendous power, we have achieved energy saving by introducing this large-capacity servo motor in place of hydraulic pressure.
Adoption of power regeneration system	In the servo amplifier, we use a power 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 reduces energy consumption by approximately 34% compared with the resistance-regeneration method. Furthermore, the adoption of new power devices has reduced energy loss of the servo drive by roughly 40%, compared with the 1995 equivalents (when installed on a ROBODRILL).
Power consumption monitoring function	By developing power-consumption-monitoring function, we have made it possible to monitor the amount of power consumed by our CNC and motors, enabling the efficient adjustment of the cycle time. 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 sufficient time is available before delivery, or when there are differences in cycle times in the production line, this function can effectively adjust power consumption in accordance with the circumstances, therefore contributing to energy savings for the entire factory.
Fast Cycle-time Technology	This series of functions reduces cycle time. Reducing operating time contributes to reductions in both direct and indirect energy consumption (e.g., energy consumption by auxiliary equipment, such as in turning a coolant pump while the machine is running).
Improving the efficiency of laser electrical-optical conversion	Improving the electrical-optical conversion efficiency has enhanced the wall plug efficiency to 40% in fiber laser technology. This technology is four times more efficient than conventional CO_2 lasers, which have an efficiency of 10%, and is 1.3 times more efficient than conventional fiber lasers, which have an efficiency of 30%.
Averaging the load of power demand	Night operation using robots disperses peak power and curbs power consumption.
Reducing CO_2 emissions by reducing weight	We have reduced the weight per unit output of laser oscillators by half and in doing so, have reduced the amount of CO_2 emission during transportation. CO_2 lasers, with a weight per unit performance of 1,300 kg, can be replaced by fiber lasers with a performance of 600 kg (based on 6 kW machines). In addition, 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.
CFC substitute-free	We replaced the cooler in the laser cabinet with a Peltier dehumidifier to attain a CFC-free environment that leads to the protection of the ozone layer. No CFCs are emitted when our customers use FANUC laser products. This also eliminates the need to hand over fluorocarbon refrigerant (for collection) at the time of disposal.
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.
Automatic wire feeding device	ROBOCUT features the world's first automatic wire feeding device with the thermal wire cutting method, which accelerates the cutting process by 200% when compared with conventional model, and shortens operation time. In addition, it is equipped with the world's first automatic work thickness tracking control, which detects the thickness of the workpiece and controls cutting power to achieve 20% to 50% reduction in electric power consumption.
Improved performance with new models	Compared with the models of the previous generation (the α-*i*E series), the ROBOCUT α-C*i*A series features a better energy-saving performance index (power consumption per workpiece) of 4.4 kWh, which has improved from 4.8kWh (of the α-*i*E series).
Electrification of peripheral equipment	Additional axis options for ROBOSHOT can electrify hydraulically controlled peripheral equipment.

Awards on Energy Saving

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

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 Award of the Ministry of International Trade and Industry (1999) in the first Global Environment Award competition

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

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

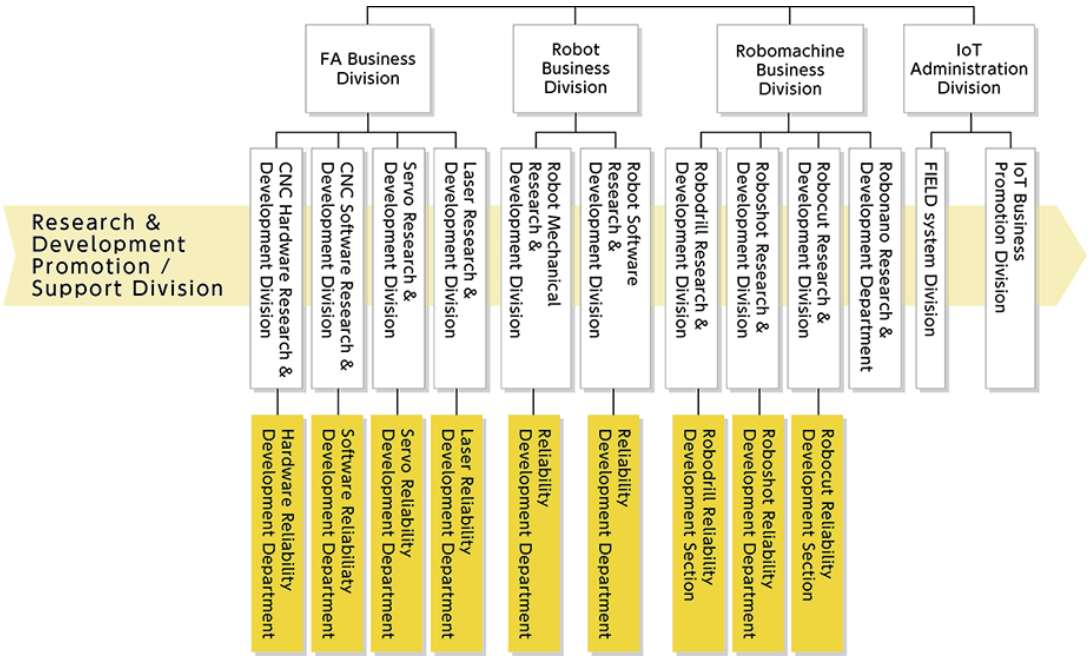
ROBOCUT α-C*i*A Series

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 Quality and Safety

FANUC promotes activities to imp rove 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 quality, safety, and reliability of its products.
The Research & Development Promotion / Support Division functions across multiple laboratories to ensure the quality and reliability of products and to enhance the prevention and prompt resolution of quality issues. At the same time, a section devoted to reliability development has been established in each laboratory in each division that engages in product development and design.
In addition, laboratories within the same business division also share information on both development and technology through various regular technology meetings, and make use of such information during development.
The Service Division has been established to provide after-sales services in order to provide feedback regarding various issues to the manufacturing and development sides.



FANUC strives to ensure the safety and quality of its products through a quality management system based on ISO 9001. We carry out checks through design review and verification in order to meet the requirements of laws, regulations and standards as well as the requirements of individual customers. In addition, we conduct risk assessments of our products.
FANUC conducts the following ongoing activities with the aim of improving and enhancing product quality.

- Technology meetings (held for lab oratory executives)
- Reliability development technology briefings (held for researchers)
- Reliability meetings (held in each laboratory)
- Quality meetings (held to improve manufacturing quality)

“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 division and laboratories.
These activities are effective in improving our products’ quality and reliability.

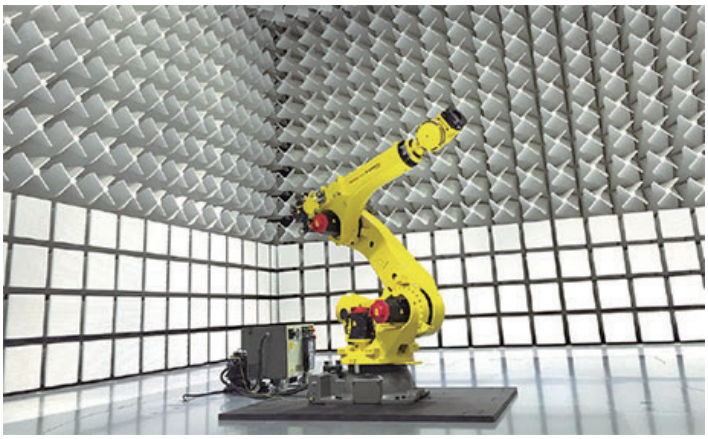
Reliability Development Technology

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 Reliability Development Division works with members of the Reliability Development Department in each laboratory, to regularly review methods to improve reliability-related issues and proceed with the standardization of reliability development methodologies.
In addition, the Defect Management Procedures have been established to define rules regarding response procedures when defects arise.
All defects that arise are registered in a database called the Defect Record, 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 Defect Record 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 researchers 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 through their safe and stable operation. To this end, it is essential to enhance product safety in order to protect operators from danger. FANUC engages in research and development to ensure 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. With ROBOSHOT, we are pursuing measures to meet the new safety requirements of injection molding machines issued in 2020 (ISO 20430). This will ensure the safety of operators and molding worksites in accordance with the new safety standards.
Dual Check Safety (DCS)	DCS complies with safety standards (IEC61508 SIL 2, IEC62061 SIL 2, and ISO 13849-1 PL d) and has been certified by certification bodies. Safety-related signals are duplicated for comparative monitoring. In the event of a failure of one hardware safety circuit, the second circuit 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 function 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.
Environmental improvement of machining sites	We are replacing plasma cutting with laser cutting, by promoting CO_2 and fiber laser machining technology. This effort will significantly reduce noise and dust at machining sites and improve the work environment.
Fully covered structure for high temperature parts	FANUC's unique structure features a fully covered injection unit, where the ROBOSHOT heater is mounted, in order to avoid the risk of operator contact with high temperature parts during molding operations.
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.

Product Design

Based on our "Simple & Smart" design policy and the Human Centered Design (HCD) concept, we design products that sufficiently fulfill user requirements to their high satisfaction, without deficiency or becoming excessive. In addition to complying with ISO, JIS, and local laws and regulations, our designs take user-friendliness and safety seriously into consideration. We are in the process of formulating related guidelines, and plan to introduce them globally to our overseas offices in the future.
Our new collaborative robot CRX, released in December 2019, has given the rough, rugged image of industrial robots a fresh new look. The clean, rounded lines of the design give the CRX a soft external appearance that allows the operator to share the space with it with peace of mind.

Solutions for Decreases in the Workforce and Skilled Engineers

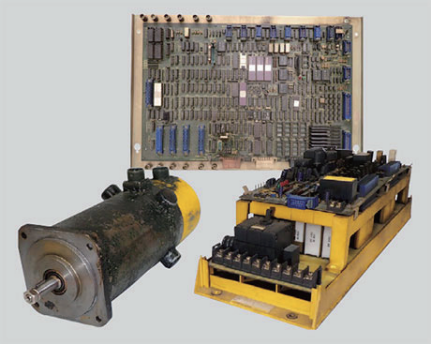
The number of workers in the manufacturing industry, as well as the number of skilled engineers is expected to decrease in the future. FANUC promotes labor saving through the automation and robotization of factories, in order to solve the problem.
In addition, if engineers cannot operate the machines 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.

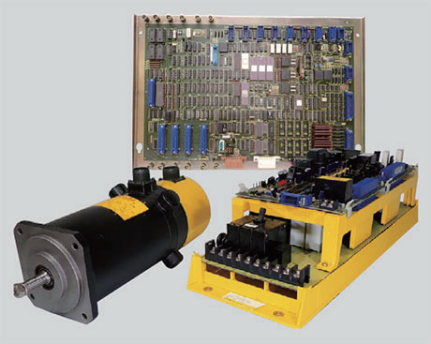
Partial automation of work processes by collaborative robots	Collaborative robots do not require a safety fence, because they securely stop operating when coming into contact with humans. The deployment of such robots in work processes carried out by humans enables the partial automation of such processes. Collaborative robots provide additional options for solving labor shortage.
QSSR (Quick and Simple Start-up of Robotization)	In order to reduce the technical roadblocks involved in building robot systems, we have packaged the basic elements required to connect CNCs and robots. FANUC facilitates the introduction of systems with easy connection of machine tools and industrial machinery to robots and easy checking of operation status, as well as with robot control by CNC program (G code command) and manual handles.
Visual guidance screen	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. They are 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 new collaborative robot CRX has made the creation of teaching programs easier. It enables operators to move the robot arms directly with their hands, allowing them to program and control the robot like they handle a toy, even if they are not familiar with controlling robots. With tablets, which are now in widespread use, operators can create teaching programs by dragging and dropping icons, just as they would with a smartphone.
Easy connection of laser oscillators	Highly- synchronous connection with machine tools and robots through simple settings supports the smooth building of machining systems.

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 discard old models or purchase new models due to discontinued maintenance service, thereby allowing them to use FANUC products at a low cost for several decades.
We perform approximately 90,000 repairs per year in Japan, of which roughly 10% consists of products that were manufactured more than 30 years ago. FANUC's Repair Factory has a stock of over 2.6 million pieces of 15,000 types of repair parts, including old parts that are no longer in production, ready to repair used motors, PCBs, or units that are more than 30 years old.
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 a washing machine using robots or other means, and after being dried overnight in 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 and overhaul them for re-use, thus contributing to the reduction of waste.
The Repair Factory has performed over 1.8 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 about 30 years old.


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 260 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 more than 260 service locations supporting more than 100 countries throughout the world.

Service First

Promotion Framework

In order to promote our basic policy, once a year, we hold the Global Service Conference, organized by the President, CEO and CIO, which is attended by senior executives of Group companies and service personnel from locations around the world, as well as key members from FANUC Headquarters. Furthermore, case studies and knowledge regarding topics such as parts and technical information, maintenance tools, service training, and service DX are shared through a variety of working group activities to promote the improvement and strengthening of our services.

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 Flexible Services

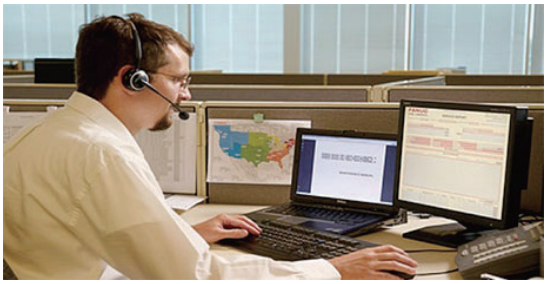
More than 2,300 service personnel and support staff (all are FANUC Group employees) around the world handle phone calls, provide services at customer sites, and manage maintenance parts. Units replaced at the request of our customers are repaired at Repair Factories in 14 locations around the world to 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.
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.
By globally managing our inventory of maintenance parts, regardless of how old or rarely used they may be, they are stored at some locations around the world. 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 mirroring the servers that contain accumulated information, including past service data.

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. Accordingly, 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 and deployed a toll-free line in Japan. 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.

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 (certain 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 24,000 members, and customer membership limited to actual users of FANUC products currently consisting of around 7,100 members (as of August 31, 2020).
Customer membership website is a very convenient site where a customer can download materials including electric manuals and purchase maintenance parts.
In December 2019, we added a chatbot function, launching a registration service for customer product information and a Q&A service regarding the membership website. Compared to the past when service personnel entered such registration information sent back from customers on postcards, such information can now be self-registered by customers, enhancing convenience for both parties. We are launching a new maintenance information service based on the registered information.
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.

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.

Support for Restoration from Typhoon Damage

In 2019, Typhoon Faxai and Typhoon Hagibis caused record storms and heavy rains in northern and eastern Japan. We have been supporting the restoration efforts of many customers who suffered flood and other types of damage in their factories. In addition to our service personnel, the employees at our laboratories and the Production Division also joined in to inspect the condition of all of the products in use and clean and repair them as necessary. As a result, among the 531 units that were damaged, we were able to quickly restore a total of 400 units that our customers wanted to restart immediately.
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

Each business division provides support to our customers per product, to enhance customer satisfaction.
In the FA Business Division, 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 laboratories as necessary to share the latest technical information and hold technical meetings to cater to new models designed by our customers.
The ROBOT Business Division and the ROBOMACHINE Business Division also provide technical support for automating production lines of our customers.

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 machines, 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 FANUC Training Center which produced more than 100,000 graduates. In April 2019, we increased its scale and established FANUC ACADEMY as an education facility with enhanced content. FANUC ACADEMY offers training courses related to all of our products, from CNCs, servos, and laser oscillators to ROBOTs, ROBOMACHINEs, and FIELD system, and offers training courses ranging from two days to three weeks, according to the needs of trainees.
During the one-year period from April 2018 to March 2019, a total of 5,186 trainees attended from Japan and overseas.
In addition, FANUC ACADEMY is also working with training schools established in the United States, Europe, and China to build a system for conducting training based on FANUC's global standard. The ACADEMY is intended to nurture sophisticated customer service as it provides a high level of technical education to personnel in charge of training and service throughout the world.

The robot education initiative was continued in fiscal 2019, with the FANUC ACADEMY giving factory tours to students from local technical high schools, providing them with opportunities to experience actual manufacturing sites first-hand.
The students presented this initiative to visitors at the opening seminar of the International Robot Exhibition 2019, which was very well received.

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

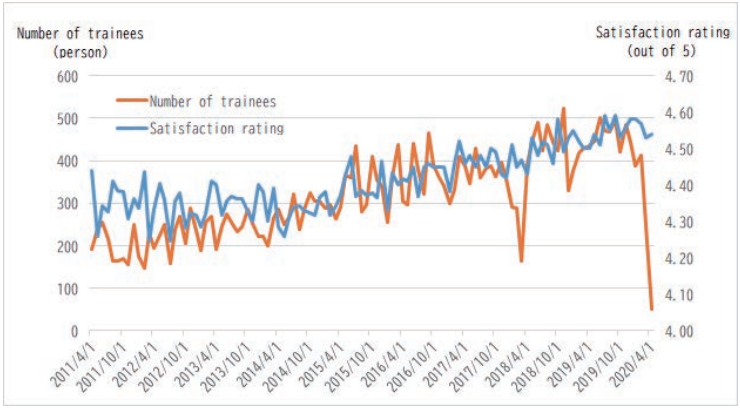
Systems to Enhance Educational Effectiveness

Workshop classrooms	Actual products are installed in our classrooms, so that trainees can practice directly on CNCs or machines by their side, while listening to lectures.
e-Learning	A tablet is provided for making preparations and reviewing training materials through e-Learning. Trainees can learn in the classrooms during breaks and in the guest rooms at night.
Abundance of machines for practice	For training on CNCs, ROBOTs, and ROBODRILLs, one unit is provided to each trainee.
Guest House	There are 110 spacious guest rooms. There is also a cafeteria and onsen facilities (hot spring baths)

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.

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.

With Our Employees

Basic Approachs

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 employ to attain self-realization with a sense of purpose.

Promotion of Employee Diversity

Basic Approachs

FANUC respects and supports the diversity of our employees, and creates an environment that accepts diversity, based on the philosophy that diversity gives rise to new values.

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.
In April 2018, we formulated and announced our General Employer Action Plan Based on the Act on Promotion of Women's Participation and Advancement in the Workplace, and we are actively promoting the recruitment of women, with the aim of improving the percentage of female employees and the ratio of women in managerial positions. Under this plan, FANUC has established two targets for the Company as a whole: a 10% ratio for female regular employees and a 5% ratio for women among newly appointed executive employees.
To achieve these goals, we are promoting efforts such as having female researchers 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.
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.
Recently, women are increasingly playing active roles in various fields as executives, with two female employees promoted as officers. We will further support the participation of women through continued efforts in the future.

Employment of Persons with Disabilities

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 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 Yamanashi Prefecture Vocational Center for Persons with Disabilities, and by appointing vocational life counselors for persons with disabilities.

Employment of Foreign Nationals

FANUC thoroughly implements the “prohibition of discrimination based on race, creed, sex, social status, religion, nationality, age, mental or physical disability, etc.” in its recruitment practices, as well. While we hire international students, we do not treat them in a different manner, or discriminate against them in any way based on nationality.

Employment of Seniors

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

Basic Approachs

FANUC promotes the prevention of occupational accidents and the development of a comfortable working environment, with a view toward creating a workplace where employees can work safely in a healthy manner. The FANUC Health and Safety Committee promotes the creation of a workplace where each employee can stay safe and healthy, through the formulation of our Safety Management Policy and Health Management Policy.

Policies

Safety Management Policy

FANUC actually communicates information to each employee by utilizing the newly introduced team leader system for our workers at manufacturing sites, and carry out activities to reduce the risk of disasters by improving work guidance.

Health Management Policy

FANUC places an emphasis on preventing heat strokes during the summer in view of recent exceptional weather conditions, while working to maintain and manage the physical and mental health of our employees.

FANUC has implemented safety and health rules to ensure the safety and health of FANUC Group company members, employees working for a contracted term, and dispatched temporary employees, in order to make work smoother and improve productivity.
When members of contractors and subcontractors perform tasks at FANUC, the company does its best to prevent disasters, accidents or injuries from occurring, in conformance with its safety management rules for these contractors and subcontractors.

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 Committee holds two meetings per year, with the President, CEO and CIO designated as the person responsible, and officers of each business division and the union leader as its members. The Safety and Health Department of the Human Resources Division serves as the secretariat engaged in coordinating activities.
In addition, we have established District Safety and Health Committees based on the law in four factory districts and five sales office districts for health and safety activities. Each District Safety and Health Committee holds meetings of the Workplace Safety and Health Committee, which is a sub-organization per department, to notify instructions and other matters from the District Safety and Health Committees to each workplace.

Initiatives

Priority Activities for Health and Safety

FANUC has specified five priority activities, and are pursuing our efforts through the establishment of a promotion department, that mainly works together with the Safety Section and each workplace.
We aim to reduce occupational accidents by setting single-year goals regarding safety management.

Preventing occupational accidents	We will prevent equipment-related accidents through the introduction of health and safety risk assessments at the time of installation of equipment. We will establish a system to provide internal notifications of the cause of each accident and countermeasures taken, with the aim to prevent accidents.
Improving the work environment	We will improve the work environment based on the results of working environment assessment.
Health maintenance and promotion	Efforts are being made to eradicate occupational diseases by conducting special health examinations, along with follow-ups of the health examinations results.
Preventing fire accidents	Efforts are made to prevent accidents by improving the management of equipment that use fire within the workplace.
Preventing cargo handling and transport accidents	Efforts will be made to create a system for preventing forklift accidents.
Designated operator system	As an initiative for preventing forklift accidents, a designated operator system will be introduced as an in-house qualification. Under this scheme, only forklift driving license holders who are recognized by the workplace as having skills above a certain standard will be permitted to drive forklifts.

Pre-commissioning Risk Management for Production Equipment

In its pre-commissioning assessment 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 and job-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.

Division and Department Heads	Training at the time of appointment of safety officer
Section Heads	Supervisor education
Full-time team leaders	Supervisor education delivered by specialist institutions Health and safety education by Health and Safety Department Education regarding management, harassment, etc. by specialist institutions Risk prediction training by specialist institutions
Newly appointed team leaders	Health and safety education
Company fleet drivers	Risk prediction training through discussions among small groups of drivers belonging to the same section
Service personnel	Risk prediction training for representatives of each location by specialist institutions

Health and Safety Patrols

With the aim of reducing occupational accidents, FANUC conducts monthly patrols at each of its factories. In addition to patrols by the safety officer, health officer, and industrial physician, we have established a system of mutual patrols, in which individual sections patrol the condition of each other's sections.

Based on the results of working environment assessments and special health checkups, we have identified workplaces with noise issues and workplaces that use organic solvents and confirmed the status of operational improvements (October 2020).

Recurrence Prevention Measures for Occupational Accidents

We are undertaking measures to prevent recurrences by identifying the status of occupational accident occurrences, analyzing the causes, and undertaking countermeasures.
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.
In 2020, we revised the Five Safety Action Principles and Five Prohibitions that had previously only been applicable to manufacturing sites, making them Six Principles and Six Prohibitions that cover the entire Company. In this way, we are striving for company-wide occupational health and safety.

Goals/Achievements

Goals

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

Achievements

In fiscal 2019, both the lost time injury (LTI) frequency rate and intensity rate fell compared with the previous fiscal year.
There were no work-related fatalities of employees, contract employees, and temporary staff at FANUC CORPORATION in fiscal 2019. We have now achieved zero fatalities for more than 10 years.

Development and Training of Employees

Basic Approach

FANUC supports the growth of our employees as human resources who are indispensable for FANUC's business activities and who contribute to the value enhancement of FANUC.
For us to achieve sustainable growth as a company in the future, we believe we must provide opportunities for each employee to deepen their understanding of our basic principles and corporate culture, learn and grow according to their own career orientation and strengths, take self-directed action as strong individuals with an awareness of their own roles, and demonstrate their strengths to the fullest while interacting with each other.

Initiatives

FANUC strives to enhance the value of our employees by providing support for their individual growth and career development.
As an educational system for this purpose, we are currently providing executive employees with training to improve their management and leadership in the workplace according to their responsibilities.
We also conduct training for employees to give them the specific knowledge and skills that are required in the individual workplaces. For example, the Service Division strives to improve customer satisfaction by providing technical education to service personnel in Japan and overseas.

Current Education and Training Framework

Management and Leadership Improvement

Training Name	Trainee	Content
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
Section head 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
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

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

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, corporate philosophy, organizational structure, and corporate culture
Etiquette training	All new-graduate recruits	Acquire business etiquette to facilitate business operations and to earn trust, through appropriate behavior and communication as members of society

Foreign Language Training (English and Chinese)

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 for language skill acquisition, including business English, English conversation, and Chinese 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.

Education and Training in the Service Division

The Service Division conducts education and 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 education and cultivation of our service personnel.
In addition, we strive to further improve customer satisfaction by giving consideration to personal appearance, behavior and manner of speaking, based on the Service Engineer Code of Conduct.

In fiscal 2020, due to the impact of COVID-19, we were unable to conduct our usual introductory training for new employees in accordance with the group education plan.
Instead, we provided all new employees assigned to the Service Division with a tablet and laptop computer immediately after they joined the Company, and they undertook a learn-from-home program online in the staff dormitory or other residence.
We provided our new employees with basic knowledge by sharing with them the e-learning content produced by FANUC ACADEMY and other resources prepared in-house by the individual departments.
Similarly, in terms of technical education for service personnel in Japan, we conducted online education by connecting FANUC Headquarters and the various service locations throughout Japan.

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. Furthermore, follow-up training is provided to new hires one year after joining the Company.
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 Fiscal 2019

Number of FANUC ACADEMY trainees	Domestic service personnel: 180 Overseas service personnel: 203
Number of trainees trained in principal group companies	Overseas service personnel: 818
Number of FANUC ACADEMY training hours (annual average per trainee)	Domestic service personnel: 28.9 hours

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 2020, 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 Workplace Award was presented to a workplace that achieved remarkable results in the elimination of occupational accidents.

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. Annual vacations were taken at a rate of 85% in fiscal 2019, and we check the achievement status of these goals in monthly meetings attended by executives. To facilitate flexible work styles that achieve a better balance with everyday life, in October 2020, we made it possible to take annual vacation in hourly increments.
In addition to establishing a system for infertility leave, we have added family care and infertility treatment to the purposes used for 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, as well as the exemption from overtime and work on holidays for child-rearing employees upon request, 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 illnesses, we have established a helpdesk to support such employees so that they can work while receiving treatment, by actively promoting shorter working hours and other means.

Main Systems

- Child-care leave (Return-to-work ratio: 100%; Retention ratio one year after returning to work: 100%)
- Maternity leave
- 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
- 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

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 executive employees 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 people with high stress levels, and analyze the ratio of health risks and people 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, to help enhance the child-rearing environment in Oshino-Mura, Yamanashi Prefecture where FANUC Headquarters is located, we established a corporate-led nursery business in the spring of 2019.
Located next door to the workplace, FANUC Nursery School reduces the time required to drop children off at the nursery school and pick them up and enables the safe and certain handover of children in the event of an emergency such as a natural disaster. Responding to users' needs, the facility has been operating at close to full capacity since its first year of operation.
In addition, the facility accepts new enrollments throughout year, 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, receiving evaluations from external institutions, and providing dietary education by cooking lunches with local ingredients.
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 (Max. 31)
Eligible ages: From at least 57 days after birth to before starting elementary school
Eligibility: Priority is given to employees of FANUC and its subsidiaries, but children of local residents are also accepted.
Opening hours: 8:00 a.m. – 7:00 p.m.

Promotion of Barrier-free Buildings

We have started to install wheelchair-accessible restrooms whenever new business premises are built and existing ones are refurbished.

Facilities with wheelchair-accessible restrooms

Headquarters area	10 facilities
Tsukuba Factory	2 facilities
Mibu Factory	5 facilities
Local offices, local branches, service centers	9 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 employees with long-term asset building by acquiring shares in the company.

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, which properly 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

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.

Direct communication between the Company and employees

1.When announcing financial results, we send a message to our employees regarding the Company's business performance and the associated background, broadening their understanding of the Company’s conditions as we strive to foster a sense of unity with employees.
2.We regularly conduct an organizational performance evaluation clinical system and listen to employee opinions from the perspective of employee satisfaction, while using the PDCA cycle to discover and resolve issues.

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.
In addition, the 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.”
We ensure that employees do not infringe the human rights of others through harassment prevention education and line-care training.

- Human Rights Policy
- FANUC Code of Conduct

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, in accordance with the guiding principles on business and human rights.

Human Rights Due Diligence

The following items will be 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

- Ensuring employee health and safety
- Prohibition of all forms of harassment
- Prohibition of child labor and forced labor
- Respect for the rights of foreign and migrant workers
- Respect for freedom of association and the right to collective bargaining
- Prevention of low-wage labor (labor less than the minimum wage and living wage)
- Prevention of excessive amounts of overtime

Respect for the Rights of Vulnerable People

- Respect for the rights of local and indigenous peoples related to our business
- Respect for the rights of women, children, persons with disabilities, minorities, and the elderly
- 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

FANUC will evaluate and identify potential and actual human rights risks and implement 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 have a negative issues on human rights.
When it is clear that our business has caused or has engaged in any violation human rights impacts, we will endeavor to implement remedies them, and will establish a grievance system as necessary.

Promotion Framework

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.

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 and Education

- 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 Local Communities

Basic Approach

FANUC values coexistence with our local communities. Many of our employees have moved from other areas to Yamanashi Prefecture, in which our Headquarters is located, following a local lifestyle while working close to home. FANUC 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, such as by welcoming factory visits by students of local technical high schools and making donations to the community. In addition, FANUC values contributing to society. Through the FA Foundation, we support research on factory automation (FA) and industrial robot technologies, and participate in the programs for training future robot engineers led by the Ministry of Economy, Trade and Industry.

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 2019, a total of eight outstanding theses were commended by the Foundation.

FA Foundation (In Japanese)

The Consortium of Human Education for Future Robot System Integration

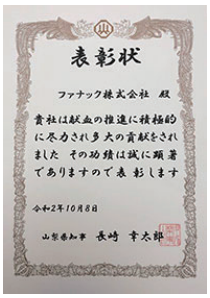
On December 18, 2019, under the initiative of the Ministry of Economy, Trade and Industry, industry players, including FANUC and the National Institute of Technology, signed a memorandum for establishing the Consortium of Human Education for Future Robot System Integration to develop human resources 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.

Contributions and Donations to the Community around FANUC Headquarters

FANUC has donated items such as testing machines and other equipment to the Fujiyoshida Municipal Medical Center, which often assists us with employee health management, thorough examinations, etc.
In addition, we make ongoing contributions to the Yamanashi Prefecture Community Chest's “Red Feather Community Chest”, and provide food support to the non-profit organization, “Food Bank Yamanashi”.
In 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 Medical Center.

Blood Donation Drives

For five days between October 1 and 8, 2020, FANUC Headquarters held a blood donation drive by the Yamanashi Red Cross Blood Center for the fourth time in as many years. The number of employees who donate blood is increasing every year, reaching 464 in 2020.
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 70 employees donating blood in two days from October 6 to 7, 2020.
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

Factory Tours

At FANUC Headquarters, we welcome factory visits by students of technical high schools in Yamanashi Prefecture, which give them a chance to experience seeing an actual manufacturing work site. We also send employees as guest lecturers to local junior high schools.

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.

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.
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).

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 970 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, we require our suppliers to comply with the reduction and elimination of harmful substances contained in products.
The Purchasing Department cooperates with laboratories and the Production Division to actively promote the use of multiple suppliers, in order 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 has set up the Supply Chain Risk Management (SCRM) Working Group to consider, and take 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, the SCRM Working Group transferred its activities to the Purchasing Department. (July 2020)

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 laboratory, each manufacturing department, and the Purchasing Department. These personnel work together to grasp the status of the suppliers, and confirm the delivery time of parts, and take supplementary measures for those that have become 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 send this Policy to each supplier and request their compliance.

Declaration of Partnership Building

In July 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 and other reasons, and we will continue our efforts 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.
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.

Conforming with Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors

FANUC strictly complies with the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (hereinafter the “Subcontract Proceeds Act”). Approximately 300 companies, or 30% 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.

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, and take measures to reduce or eliminate harmful substances contained in products.

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.

Goals

FANUC pursues the development of products that are “Reliable, Predictable, Easy to Repair”. In the belief that we will be able to earn a high level of customer satisfaction over the long term by continuously supplying highly reliable product. We convey this policy to our suppliers to encourage them to enhance the reliability of deliverables and other products.

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, Material) and obtain FANUC's approval in the event of any changes made to deliverables. Each year, 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 Fiscal 2019

We have been continuously working since last year to achieve our single-year goals. To aid deeper understanding, we added an FAQ to the resources for confirmation in fiscal 2019. We also respond to our suppliers' conditions in a flexible manner, which has allowed us to reach agreement with them in some 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. In addition, we will consider posting information such as the supplier's efforts on ESG-related items.

Sustainability Report 2020

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

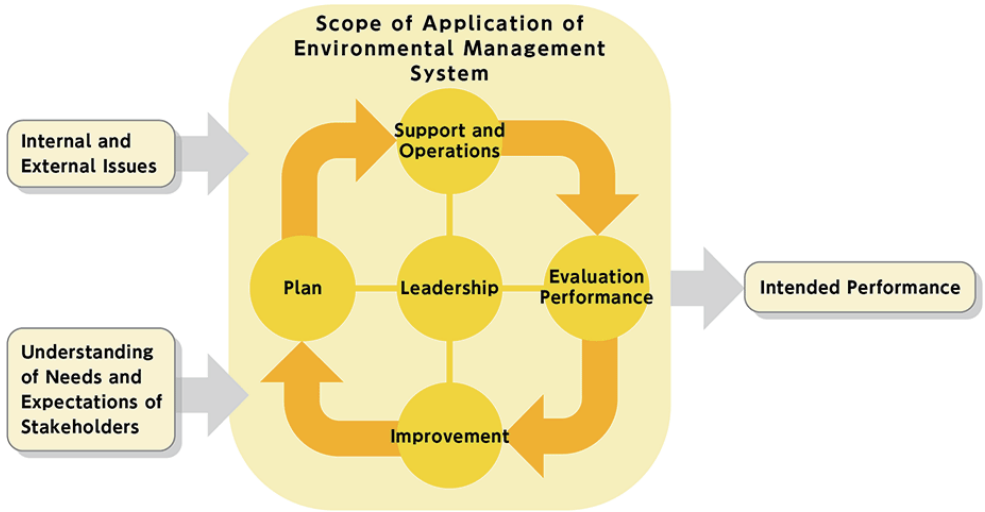
Environmental Management Promotion

FANUC recognizes that actions for the environment are an important tasks, with the President, CEO and CIO 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 Executive Managing Officer and 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

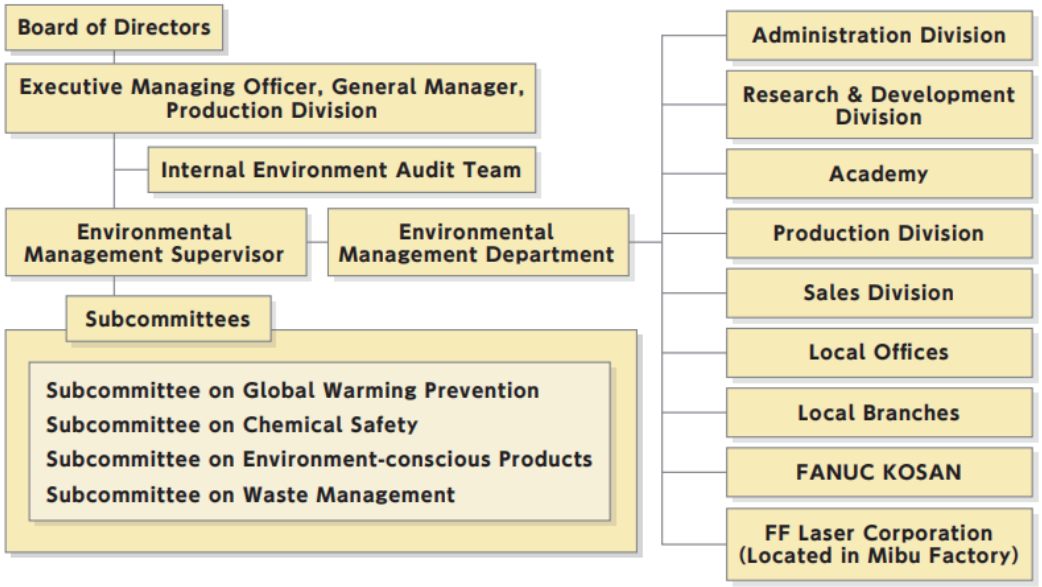
FANUC has acquired certification for the international standard for environmental management systems ISO 14001 (2015 version).
In August 1999, the entire FANUC organization was granted ISO14001 certification, with the registered range being those activities related to FA, ROBOT, and ROBOMACHINE products (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 Executive Managing Officer and 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.



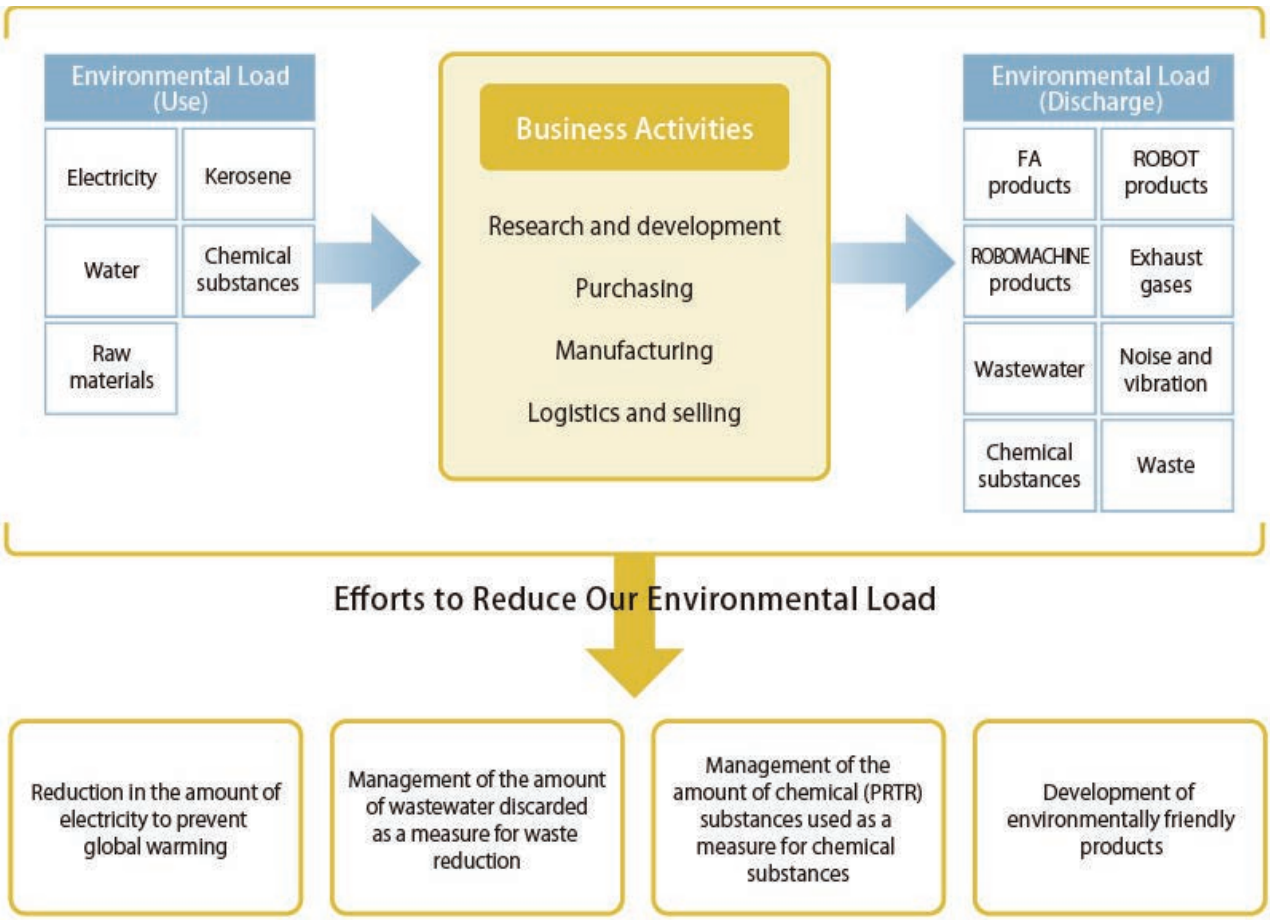
Internal Environmental Audit

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.
Thus far, 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 have been filed regarding environmental issues.

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.

Overview of Environmental Impact from Corporate Activities



Mid-to long-term Environmental Targets

Item	Mid-to long-term environmental target
Amount of electric power used	Reduce the amount used in proportion to the level of production by 5% or more of the fiscal 2015 level by fiscal 2020.
Amount of kerosene used	Change from kerosene to city gas in the Headquarters area by fiscal 2020.
Amount of waste liquid discarded	Using fiscal 2015 as reference, identify the actual amount of waste liquid discarded in proportion to the level of production by fiscal 2020.
Amount of PRTR chemical substances used	Using fiscal 2015 as reference, identify the actual amount of PRTR chemical substances used in proportion to the level of production by fiscal 2020. Thoroughly conduct storage management.
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 2020.

Environmental Targets for Fiscal 2019 and Performance

Item	Environmental target for fiscal 2019	Performance in fiscal 2019
Electricity consumption	Limit the amount used in proportion to the production level to an increase of 11.8% compared to the previous fiscal year's level.	Target not achieved with a 12.2% increase from the previous fiscal year's level. 1.Saved electricity through equipment operation. 2.Saved electricity by improving equipment and installing energy-efficient equipment. In fiscal 2019, although efforts were made to promote the use of LED lighting, conduct maintenance management of cogeneration equipment, and improve the energy efficiency of buildings, the target was not achieved due to a decrease in the production level.
Kerosene consumption	Switch to city gas in the headquarters area.	Target achieved. 1.Partially switched to city gas in the headquarters area.
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 Fiscal 2020

Item	Environmental target for fiscal 2020
Electricity consumption	The target was to reduce the power consumed in proportion to the level of production by at least 10.5% compared to the previous fiscal year.
Kerosene consumption	Change from kerosene to city gas in the Headquarters area.
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.
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 Fiscal 2019

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 fiscal 2019 increased by 12.2% compared to the previous fiscal year's level, and we could not achieve the fiscal 2019 target.
In fiscal 2019, although efforts were made to promote the use of LED lighting, conduct maintenance management of cogeneration equipment, and improve the energy efficiency of buildings, the target was not achieved due to a decrease in the production level.

Electric Power Reduction Measures (main measures implemented by fiscal 2019)

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 control.
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.

Amount of Kerosene Used

Kerosene Reduction Results

In some parts of the Headquarters area, kerosene was replaced by city gas.
As a result, we reduced the total amount of kerosene used by 42% compared to the previous year.

Amount of Waste Liquid Discarded and Amounts of Other Waste

Waste Liquid Reduction Results

Identified the actual amount of waste liquid discarded in fiscal 2019 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 fiscal 2019)

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 21,647(t), waste plastic 12(t), and waste liquid 51(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 fiscal 2019 in proportion to the level of production.
Improved the management of chemical substances, so as to prevent environmental pollution due to spilled chemical substances.

PRTR Chemical Substance Reduction Measures (measures implemented by fiscal 2019)

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.

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

Climate Change

Basic Approach

FANUC is addressing climate change throughout its corporate activities. In the life cycle of products, energy is consumed not only when they are produced, but also when they are used by our customers, who should enjoy higher energy-saving benefits. FANUC has long been working for customers' energy-saving on top of reducing energy consumption during production and transportation. In order to respond to climate change, FANUC has set medium- to long-term objectives to reduce CO_2 emissions. The objectives cover all sources of energy used for R&D and production activities, including electricity, gas and oil.

Promotion Framework

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

Environmental Management Promotion

Climate-related Risks and Opportunities

Risks Related to the Transition to a Low-carbon Economy

Type	Major risks	Main initiatives
Market/ Reputation	As majority of our shareholders is ESG-conscious, expansion of ESG related investment is likely to affect us.	We will continue to work to improve our ESG initiatives in order to enhance corporate value.
Reputation	There is a risk of lawsuit by customers who claim delayed delivery, which will be caused by likely heavy snowfall in our Headquarters Factories (Yamanashi Prefecture).	In order to disperse risks, we have developed multiple manufacturing locations in the Mibu area (Tochigi Prefecture), the Tsukuba area (Ibaraki Prefecture), and the Hayato area (Kagoshima Prefecture) in addition to our Headquarters area (Yamanashi Prefecture).

Risks Related to the Physical Impacts of Climate Change

Type	Major risks	Main initiatives
Acute	There is a risk that typhoons and floods will halt our service operations in the Call Center, and in delivery of maintenance components.	In order to diversify risks, we have established a new service location, Nagoya Service Center in Komaki City, Aichi Prefecture in addition to the one at Hino Branch Office (Hino City, Tokyo).
Acute	Due to the location of our Headquarters Factories (Yamanashi Prefecture) at the foot of Mt. Fuji (at an elevation of roughly 1,000 meters), there is a risk, for example, that the supply of kerosene will be cut off by heavy snowfall which may cause our factory to stop operation.	By laying connecting gas pipeline to the main line, we are switching energy from kerosene to city gas. In order to diversify risks, we have developed multiple manufacturing locations; Mibu Factory (Tochigi Prefecture), Tsukuba Factory (Ibaraki Prefecture), and Hayato Factory (Kagoshima Prefecture) in addition to our Headquarters Factories (Yamanashi Prefecture). We are also working to minimize the impact of snowfall by purchasing snowplows and constructing multilevel parking lots.
Acute	There is a risk of procurement delays of our suppliers caused by typhoons and floods.	In order to reduce procurement risk by climate change, we are studying whether our suppliers have an ability to produce in multiple locations. If not, we will urge the suppliers to have multiple sites, or procure from multiple suppliers.
Chronic	There is a risk of rising temperatures having negative impacts on our working and production environments.	Due to the cool-climate location (Yamanashi Prefecture) of our Headquarters, there used to be no needs for air-conditioning equipment in some buildings. However, as a result of recent climate change, it has become became necessary to have such equipment, while considering their efficiency.

Climate-related Opportunities

Type	Major Opportunities	Main initiatives
Products/ Services	The transition from internal combustion engines to EVs powered by electric motors, driven by measures taken by the automobile industry to combat climate change, may have a major effect on the market environment for our main products in the FA business.	The transition to EVs is expected to expand the range of robot applications leading to an increase sales. Further, increased sales of sensors and cameras will favorably affect the sales of ROBOSHOT (electric injection molding machine). Furthermore, requirements for high-precision components (to be used in EVs), as well as demand for mold machining of such component, will result in a growth in demand for CNC along with machine tools.
Products/ Services	Stricter environmental regulations on resource conservation led by Europe, such as reducing greenhouse gas emissions and managing chemical substance, may lead to increased costs.	Leading the development of energy-saving products and products with high energy efficiency will provide opportunities to expand sales of our products in developed markets such as Europe.
Products/ Services	Environments where factory equipment are used are expected to become harsher mainly due to the rise in temperature. In addition, impact of typhoons and rising temperature may deteriorate transportation conditions. There may be a greater demand for products that are capable of coping with such conditions.	We have the ability to develop competitive products with high performance and reliability to further increase our sales even under harsh operating and transport conditions.
Products/ Services	There is a possibility of a growth in environment-conscious equipment wit	With more than 260 service locations around the world, we offer maintenance services for as long our customers use the FANUC 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 press machines, which require tremendous power, we have achieved energy saving by introducing this large-capacity servo motor in place of hydraulic pressure.
Adoption of power regeneration system	In the servo amplifier, we use a power 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 reduces energy consumption by approximately 34% compared with the resistance-regeneration method. Furthermore, the adoption of new power devices has reduced energy loss of the servo drive by roughly 40%, compared with the 1995 equivalents (when installed on a ROBODRILL).
Power consumption monitoring function	By developing power-consumption-monitoring function, we have made it possible to monitor the amount of power consumed by our CNC and motors, enabling the efficient adjustment of the cycle time. 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 sufficient time is available before delivery, or when there are differences in cycle times in the production line, this function can effectively adjust power consumption in accordance with the circumstances, therefore contributing to energy savings for the entire factory.
Fast Cycle-time Technology	This series of functions reduces cycle time. Reducing operating time contributes to reductions in both direct and indirect energy consumption (e.g., energy consumption by auxiliary equipment, such as in turning a coolant pump while the machine is running).
Improving the efficiency of laser electrical-optical conversion	Improving the electrical-optical conversion efficiency has enhanced the wall plug efficiency to 40% in fiber laser technology. This technology is four times more efficient than conventional CO_2 lasers, which have an efficiency of 10%, and is 1.3 times more efficient than conventional fiber lasers, which have an efficiency of 30%.
Averaging the load of power demand	Night operation using robots disperses peak power and curbs power consumption.
Reducing CO_2 emissions by reducing weight	We have reduced the weight per unit output of laser oscillators by half and in doing so, have reduced the amount of CO_2 emission during transportation. CO_2 lasers, with a weight per unit performance of 1,300 kg, can be replaced by fiber lasers with a performance of 600 kg (based on 6 kW machines). In addition, 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.
CFC substitute-free	We replaced the cooler in the laser cabinet with a Peltier dehumidifier to attain a CFC-free environment that leads to the protection of the ozone layer. No CFCs are emitted when our customers use FANUC laser products. This also eliminates the need to hand over fluorocarbon refrigerant (for collection) at the time of disposal.
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.
Automatic wire feeding device	ROBOCUT features the world's first automatic wire feeding device with the thermal wire cutting method, which accelerates the cutting process by 200% when compared with conventional model, and shortens operation time. In addition, it is equipped with the world's first automatic work thickness tracking control, which detects the thickness of the workpiece and controls cutting power to achieve 20% to 50% reduction in electric power consumption.
Improved performance with new models	Compared with the models of the previous generation (the α-*i*E series), the ROBOCUT α-C*i*A series features a better energy-saving performance index (power consumption per workpiece) of 4.4 kWh, which has improved from 4.8kWh (of the α-*i*E series).
Electrification of peripheral equipment	Additional axis options for ROBOSHOT can electrify hydraulically controlled peripheral equipment.

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. ROBOMACHINE products are used in the production of medical instruments, including syringes and artificial bones, contributing to efforts to achieve a goal among SDGs of securing healthy life.

Awards/Topics on Energy Saving

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

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 Award of the Ministry of International Trade and Industry (1999) in the first Global Environment Award competition

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

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

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).
Introduction of cogeneration equipment	We have introduced cogeneration systems at our new 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 annual CO_2 emissions at the Mibu Factory (Tochigi Prefecture) are estimated to have been reduced by 1,864 tCO_2e. Because the Tsukuba Factory (Ibaraki Prefecture) has been in operation for less than one year, results for the Tsukuba Factory are omitted.
Consideration for the environment by switching to city gas	By switching the fuel (for boilers in the Headquarters area) from kerosene to city gas, we are continuously aiming to reduce CO_2 emissions by 25%, and eventually to promote our BCP. At the same time, we are working to eliminate kerosene tanks at during this transition in order to reduce the risk of soil contamination.

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 fiscal year 2018, a total of 38.81 Mw was generated from solar power.
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.
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.
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.

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.
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, CEO and CIO 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 the status of their response to the RoHS Directive and substances newly added to the Substances of Very High Concern (SVHC) list under the REACH Regulation that are contained in their products. Further, we also support various safety standards such as CE marking certification, UL Standards, and GB standards, as required.

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.

Initiatives

Product Initiatives

Lifetime maintenance	Even for discontinued models, we provide lifetime maintenance as long as they are used by customers. As a result, FANUC products can be used at economical cost for several decades, and therefore generate minimum waste. Lifetime maintenance
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.
designing products in small size, we reduce weight and number of components	We have reduced the use of resources 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 water-soluble cutting fluid	By designing products in small size, we reduce weight and number of components
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.
Changing our casting method	By changing the casting method of the arm of high-performance ROBODRILLs from a wooden die to a metal die, we have reduced cutting expenses. This has also reduced the cycle time (per machine) from 18 minutes to 16 minutes.

Initiatives in Packaging Materials

Significant reduction in the use of steel cases	In translating products in containers directly from a port to a warehouse, we used to pack ROBOTs and ROBOMACHINEs in steel cases. However, we are now able to significantly reduce the use of steel cases by using the containers as the packing cases. It means that we are directly packing ROBOTs and ROBOMACHINEs onto containers 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.
Saving resources	We have changed the shape of steel skids used in transporting, while maintaining their strength, to reduce the amount of steel used.
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 have changed shapes of the cardboard (boxes used in delivering CNC systems to machine tool builders in Japan) to be reusable and by arranging delivery trucks to collect the empty cardboard boxes to inspect them and repair for reuse. 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 ma chine 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.
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.

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, and monitor the water quality through monthly inspections.

Promotion Framework

FANUC recognizes addressing the conservation of water resources as an important issue, with the President, CEO and CIO 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 Promotion

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 treatments to adjust the pH value, and continuously monitor our water treatment facilities. In addition, we conduct monthly water quality inspections 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 ROBOT factory No. 1 at Headquarters, 41% of wastewater is reused by utilizing oil-water separators. In our servo motor parts machining factories No. 1 and 2 at Headquarters, we reuse 11% of wastewater by making full use of distillation and regeneration equipment. In the future, our new factory (servo motor parts machining factory No.3) is expected to be able to reuse nearly 80% of wastewater by increasing the efficiency of wastewater use.
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. (Completed in December 2019)

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 greening rate. We maintain our forest on a daily basis, and as a result, the trees and flowers adorn the changing seasons, and various wild birds 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 greening 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.

100-year Forest Restoration Plan

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, 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.

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 100-year Forest Restoration Plan, because the existing forest was artificially planted with a single species of coniferous tree, 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 premises of our Mibu Factory in Tochigi, the rare plant Lecanorchis suginoana, which appears in the Red Data Book Tochigi 2018, compiled by Tochigi Prefecture, has been found growing. The entire area can be said to constitute a valuable natural environment.
FANUC complies with environmental laws and regulations, and cooperates with the environmental surveys conducted by Tochigi Prefecture.

Sustainability Report 2020

Governance

Governance

FANUC recognizes that a company will last forever and be sound with “strict preciseness” and the corruption of an organization and downfall of a company start from a lack of “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
- Human Rights Policy
- CSR Procurement Policy
- Information Security Policy
- Anti-Bribery Policy
- Tax Policy
- Guidelines for Restricting Contact with Competitors

Anti-Bribery Policy

FANUC acts in compliance with applicable domestic and international laws and regulations concerning the prevention of offering bribes, etc. FANUC hereby also sets forth this Anti-Bribery Policy (this “Policy”) and FANUC officers and employees shall act in compliance herewith.

1. Prohibiting the Offering of Bribes, etc.

(1) Regardless of whether or not FANUC bears the expenses, FANUC officers and employees will not directly and indirectly engage in any provision of bribes, offer or promise to engage in any provision of bribes, or otherwise engage in any acts relating to corruption (including making facilitation payments, i.e. payments of small amounts made to public officials in order to facilitate procedures for administrative services) to any national or foreign public officials and persons comparable thereto (i.e. officers and employees of a national government, local government, international organization, etc.; collectively, “Public Officials”). Moreover, FANUC officers and employees will not accept any entertainment, gifts or other benefits that go beyond sound business practices or social norms.

(2) FANUC officers and employees will not engage in any provision of entertainment, gifts, profits, and other benefits to business partners who are not Public Officials, or their officers and employees, etc., unless those actions are made in compliance with applicable domestic and international laws and regulations and within a scope that is appropriate in terms of social norms.

2. Preventing Other Corruption

In addition to not offering bribes, FANUC officers and employees will also not engage in any act relating to corruption which abuses their official authority or position for the benefit of an individual or organization, including embezzlement, breach of trust, obstruction of justice or money laundering.

3. Third Parties such as distributor, etc

If there is a risk of any of the acts specified in Articles 1 and 2 being carried out through any third party, such as a distributor, supplier, intermediary or consultant, no FANUC officer or employee will engage such third party.

4. Retaining Records

FANUC shall accurately record its accounting books based on the facts in order to ensure accountability for compliance with applicable laws and regulations concerning the prevention of offering bribes, etc, as well as compliance with this Policy.

5. Establishing a Reporting System

If any FANUC officer or employee is suspected of being in breach of this Policy, FANUC will make sure that information is promptly shared so that the issue will be handled in a timely manner.

6. Review and Improvement of This Policy

FANUC will review, revise and improve this Policy as necessary.

* This Policy applies to FANUC CORPORATION and its domestic and foreign subsidiaries.

- End -

Corporate Governance

Basic Approach

In order for the Board of Directors to fulfill its monitoring functions in sync with the field, Executive Directors shall disclose and explain accurate and timely information from worksites to the Board of Directors. The Board of Directors shall not restrict itself to theoretical discussions, but rather, shall strive to hold discussions that are constructive. 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 monitoring functions of management (the executive functions).

Promotion Framework and Initiatives

- FANUC is a company with an Audit & Supervisory Board. We place importance on the opinions of the Audit & Supervisory Board Members at the Board of Directors, while keeping the Board of Directors (the monitoring functions of management) and the management side (executive functions) independent from each other.
- Four of the twelve members of the Board of Directors are Independent Outside Directors, which account for over one-third of the Board of Directors.
- In our efforts to promote diversity in the Board of Directors, the Directors include one woman and one foreign national.
- Three of the five Audit & Supervisory Board Members are Outside Audit & Supervisory Board Members, one of whom is a woman.
- From the perspectives of whether the respective independence of the Board of Directors and management is maintained and whether the effects of diversity are produced, we will continue to verify, on a regular basis, whether discussions within the Board of Directors and the Audit & Supervisory Board are lively and if the contents of those discussions are in line with the actual circumstances, making any 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, to secure the objectivity and transparency, etc. of procedures through the deliberation by this Committee.

Members:
Outside Director Kazuo Tsukuda (Chairperson)
Representative Director, Chairman Yoshiharu Inaba
Representative Director, President, CEO and CIO Kenji Yamaguchi
Outside Director Yasuo Imai　Outside Director Masato Ono
Outside Director Naoko Yamazaki

Evaluation of the Effectiveness of the Board of Directors

Opinions, evaluations, and other feedback are received from the Directors (especially Independent Outside Directors) and Audit & Supervisory Board Members at meetings for exchanges of opinions, which are held twice a year in principle. In addition, annual questionnaire surveys on the effectiveness of the Board of Directors are conducted to find necessary topics related to the evaluation. The Board of Directors deliberates on these topics, as appropriate, and discloses the details of these deliberations in the corporate governance report every year.
Since a part of the functions of the Legal Department were made independent to become the new Governance Department in November 2019, we have been further enhancing initiatives regarding corporate governance.
The environmental issues, the target goals, implementation status, and achievement evaluations are reported to the Board of Directors, and they are subject to evaluations as one of the important subject for monitoring by the Board of Directors.

Directors' Remuneration

The system for Directors' remuneration, etc. is as follows.
The upper limit of the total amount was set at the following total amount by resolution of the 37th Ordinary General Meeting of Shareholders of June 28, 2006.

1. Fixed annual aggregate ceiling amount of ¥1 billion
2. Variable aggregate ceiling amount, which is set by multiplication of the consolidated net profit of each half year and 1/25 of the dividend payout ratio (%). (It should be noted, however that the variable amount for the first half of the fiscal year shall be paid in the

Note: The payout ratio (%) shall be calculated in accordance with the following formula for each half year:

Payout ratio for the first half of the fiscal year (April to September)
= Amount of interim dividend per share for the said period
÷ Consolidated net income per share for the said period × 100

Payout ratio for the second half of the fiscal year (October to March next year)
= Amount of year-end dividend per share for the said fiscal year
÷ (Consolidated net income per share for the said fiscal year
- consolidated net income per share for the first half of the said fiscal year) × 100

The upper limit of the total annual remuneration, etc. for Audit & Supervisory Board Members was set at ¥250 million by resolution of the 45th Ordinary General Meeting of Shareholders of June 27, 2014.

Internal Control System

Basic Approach

Based on the FANUC Code of Conduct, which is derived from the basic principle of “strict preciseness and transparency”, we have established basic rules for compliance, including an anti-corruption policy. In addition, we have established detailed rules for compliance and deployed them internally through our basic policies, including our “Human Rights Policy”, “Basic Policy on the Prevention of Bribery, etc.”, and “CSR Procurement Policy”, as well as other various regulations, including rules for the prevention of insider trading and the management of confidential information, the Antimonopoly Act, and rules for the protection of personal information.

Promotion Framework and Initiatives

Whistleblowing System

FANUC has established a system under which officers and employees of FANUC and its domestic subsidiaries can make whistleblowing reports to FANUC' s internal and external contacts thorough hotlines. We are also gradually expanding those hotlines to overseas group companies so that officers and employees may report directly to FANUC Headquarters.
In response to whistleblowing reports from both Japan and overseas, we strive to enhance the protection of whistleblowers to ensure that they are not treated unfavorably in any way, by taking measures such as the revision of the Whistleblowing System Operation Rules as appropriate.

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 Representative Director, conducts internal audits of risk management.

Compliance

Issues related to compliance are discussed by the Compliance Committee, which is chaired by the Representative Director, and important issues are always reported to the Board of Directors and the President, CEO and CIO. In addition, the Management Meeting, which mainly comprised of the heads of each business divisions, deliberates also on these issues. Furthermore, the latest cases of whistleblowing is reported to the Board of Directors at least twice a year, so that adequate deliberations are made on related compliance issues as necessary.

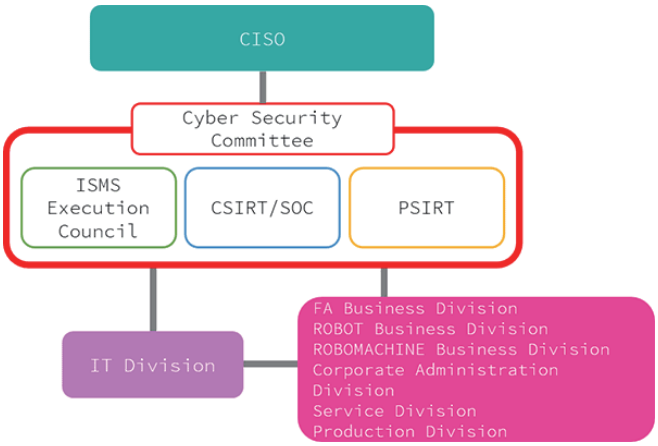
Cyber Security

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 Cyber 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.

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),
FA Products Manufacturing Division and FA Products Management Division (Headquarters).

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 FA Products Management Division of Headquarters acquired ISO27001

Intellectual Property

Basic Approach

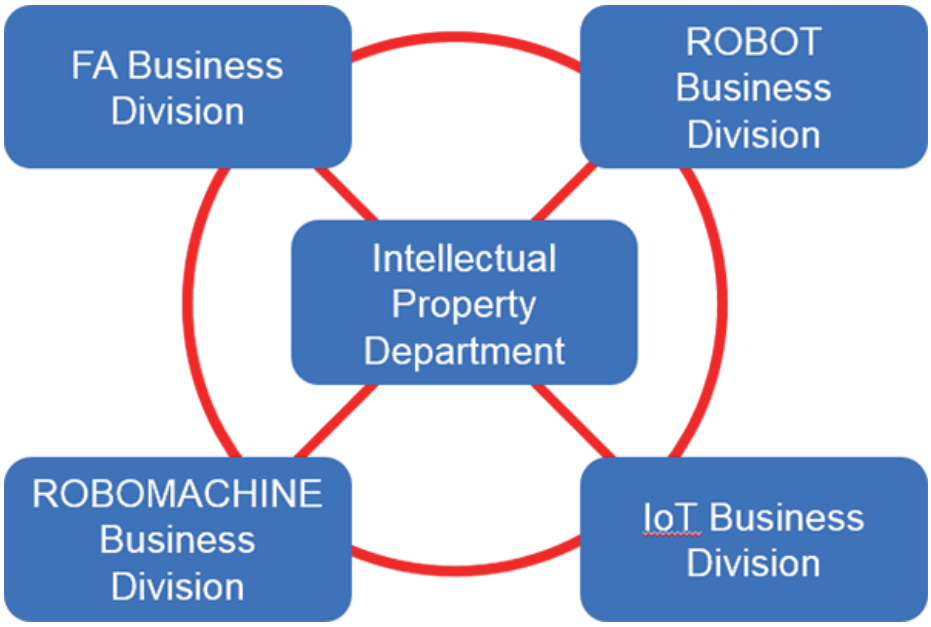
FANUC strives to acquire global intellectual property rights with the aim of protecting the technologies and brands of our own products, while also respecting the intellectual properties of third parties.

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.

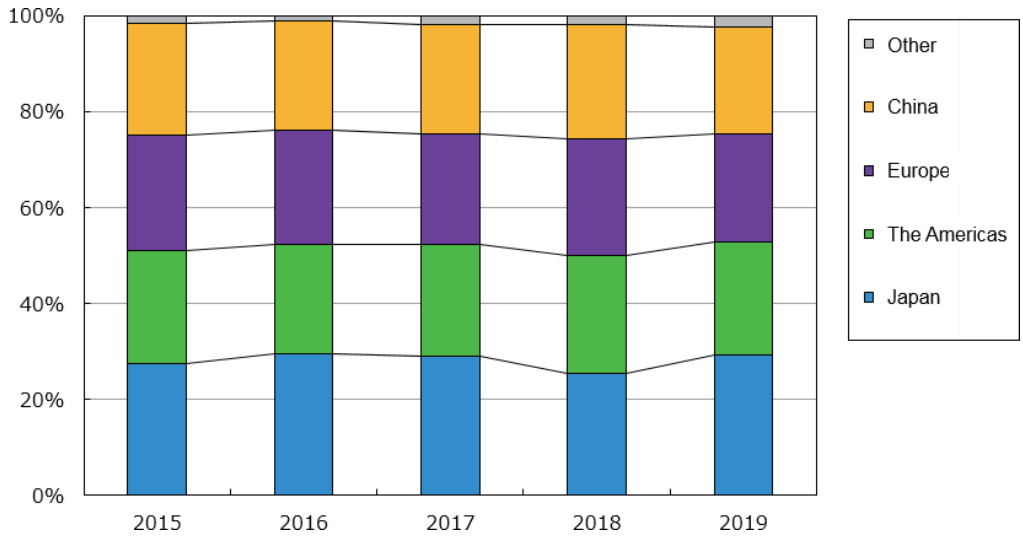
Promotion Framework

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



Initiatives

- For patents, we strive to obtain global rights with a particular focus on the United States, Germany, and China.



- To prevent infringements on the rights of others, the entire company conducts thorough research on other parties' patents.
- Every year, we conduct a range of intellectual property education programs for researchers to promote and support research and development that is conscious of the prevention of infringement of other parties' rights and of

Tax Policy

FANUC CORPORATION and its domestic and overseas subsidiaries ensure the practice of “Strict Preciseness” and “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.

FANUC CORPORATION

Oshino-Mura, Yamanashi, Japan
https://www.fanuc.co.jp/en/sustainability/
TEL +81-555-84-5555, FAX +81-555-84-5512

SUSTAINABILITY REPORT 2020