



TMEiC
We drive industry

**SUSTAINABLE
DEVELOPMENT
GOALS**

Sustainability Report

2021



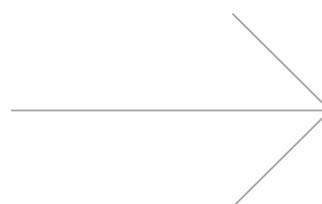
INDEX

“TMEIC Group” refers to TMEIC and its subsidiaries. However, all data and information stated in this report concerns only TMEIC unless otherwise stated.

As applicable, TMEIC and its subsidiaries have different codes, policies, standards and procedures in light of legal and other requirements in their locations.

Product lineup differs by country. For product inquiries, please contact your nearest sales office.

Message from the President & CEO	•••••••	2
TMEIC Sustainability and the SDGs	•••••••	4
Realize a Sustainable and Resilient Society	•••••••	7
Pursue Innovation to Expand Added Value	•••••••	17
Develop Human Resources and Create an Environment Supporting Corporate Activities	•••••••	20
Establish Standards and Rules That Form the Basis of Sound Corporate Activities	•••••••	27





President & Chief Executive Officer
Masahiko Yamawaki

The SDGs serve as a guide in our business activities as we seek to contribute to the sustainable development of global society.

The Sustainable Development Goals (SDGs) were adopted by the United Nations in 2015 and the movement to respond to the social issues outlined in the SDGs is growing globally. In Europe, for example, environmental, social and governance (ESG)-related efforts are fast becoming a major premise of business activities. Also, the extent to which a company engages in these areas is having an increasing impact on its corporate value. As such, it is therefore more critical for Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEiC) to focus its attention, especially since our operations cover not only Japan but also many parts of the world from the United States and Europe to China, Southeast Asia, India, Australia and the Middle East.

Recently, global society and the economy are undergoing tremendous change. The COVID-19 pandemic has forced us to significantly readjust our lifestyles and economic activities all over the world. Fortunately, with the development of vaccines, people are gradually returning to their "normal lives." However, the outlook for the future is still uncertain with the emergence of COVID-19 variants. Under these circumstances, I have reaffirmed the importance of acting in harmony with society and the environment and acting in an "Agile" manner in response to change, both as an individual and as a company.

Achieving carbon neutrality is also of key importance. The growing influence of international initiatives, as well as the declaration in Japan to "achieve carbon neutrality by 2050," have a significant impact on the corporate activities of our customers. On the other hand, we can expect a further increase in power consumption in line with advancements in digitalization and electric vehicles. In response to these trends, I am confident that we can make a contribution to the realization of carbon neutrality by further improving the efficiency of our customers' manufacturing processes through the provision of our products such as power conditioning systems (PCS) aimed at the proliferation of renewable energy, motor and drive systems that save energy and boost efficiency, and solutions.

The TMEIC Group's corporate philosophy is to build relationships of trust with customers and contribute to the sustainable development of global society as an industrial systems integrator. This philosophy has been in place since our earliest days and embodies the idea of sustainability that we espouse. In this sense, I believe it has a strong correlation with the tenets of the SDGs. As such, the SDGs serve as a guide to the direction of our activities in relation to our unchanging mission to resolve social issues through our corporate activities and to drive ongoing growth and development hand in hand with society and our customers. From this perspective, we used the SDGs as a guideline when we formulated four key challenges in fiscal 2019: "Realize a sustainable and resilient society," "Pursue innovation to expand added value," "Develop human resources and create an environment supporting corporate activities" and "Establish standards and rules that form the basis of sound corporate activities."

In the process of identifying these challenges, we determined that our business activities could make a significant contribution to three of the SDGs in particular, namely: Ensure access to affordable, reliable, sustainable and modern energy (Goal 7); promote inclusive and sustainable economic growth, employment and decent work for all (Goal 8); and build resilient infrastructure, promote sustainable industrialization and foster innovation (Goal 9).

We formulated the basic management policy "TMEIC Next Vision" with a view to becoming the company we aspire to be by 2030 based on our corporate philosophy. With TMEIC Next Vision, we aim to boost corporate value by focusing on three axes as guiding principles in our operations: Global (advance global management), Innovation (drive evolution in corporate activities) and Presence (enhance corporate presence). We believe that we can make a definite contribution to the achievement of the SDGs by putting into practice these basic principles. We will spread the idea throughout the Group that our corporate activities are closely tied to the resolution of social issues and that implementing initiatives in line with TMEIC Next Vision will help us fulfill our social responsibility.

In conclusion, I would like to point out that TMEIC was established through the close bonds of personnel in Toshiba and Mitsubishi Electric and has grown ever since with an affinity for embracing many diverse cultures. Over the years, we have fostered an environment of being highly receptive to diversity. We will strive to make further inroads around the world as we promote efforts toward globalization and contribute on a global scale to the resolution of common worldwide social issues.

Going forward, we will continue to develop sustainable activities and work to increase understanding of our corporate philosophy and these efforts among our different stakeholders and in society at large.

I ask for your continued guidance and support of TMEIC as we strive to achieve our goals.

TMEIC Sustainability and the SDGs

The TMEIC Group's corporate philosophy is to build relationships of trust with customers and contribute to the sustainable development of global society as an industrial systems integrator. This philosophy and the TMEIC Group's codes of conduct outline our approach to sustainability.

The Group recognizes that it has a social responsibility to help realize a society in which the environment and the economy are in harmony, and to develop technologies that support environmental protection. With this in mind, we have been undertaking initiatives that leverage our state-of-the-art technology and exceptional engineering capabilities so that our business activities contribute to the realization of a sustainable society. At the same time, we have endeavored to further gain the trust of customers and build better partnerships.

Following adoption of the Sustainable Development Goals (SDGs) by the United Nations in 2015, TMEIC has begun efforts to integrate the SDGs into management as a means to help achieve these goals. In fiscal 2019, we incorporated the SDGs as Group-wide guidelines and identified key challenges. Based on these critical areas, we will look to further strengthen ties with customers and continue taking on new challenges

SUSTAINABLE DEVELOPMENT GOALS



TMEIC's Key Challenges

TMEIC has identified key challenges based on the 17 Goals and 169 targets of the SDGs in order to determine specific areas to focus on in future activities.

All internal business divisions were involved in the process. Interviews were conducted to determine challenges and associated activities, and ensure that each of these are consistent with our management philosophy and medium-term management plan from the perspective of importance to the Company.

As a result, we put forward the following four themes as areas of critical importance.

1. Realize a sustainable and resilient society
2. Pursue innovation to expand added value
3. Develop human resources and create an environment supporting corporate activities
4. Establish standards and rules that form the basis of sound corporate activities

Going forward, we will set key performance indicators (KPIs) for each theme, regularly evaluate and re-identify the key challenges and continuously monitor each item through a Plan-Do-Check-Act (PDCA) cycle.

Key Challenges in Business Activities

Realize a Sustainable and Resilient Society

- | | |
|---|---|
|  <ul style="list-style-type: none"> · Enhance energy efficiency · Spread the use of renewable energy |  <ul style="list-style-type: none"> · Contribute to increased productivity in industrial markets |
|  |  <ul style="list-style-type: none"> · Help improve access to safe water · Contribute to the spread of sustainable transportation |
|  |  <ul style="list-style-type: none"> · Enable energy-saving local production for local consumption · Help mitigate climate change · Create a society resilient to disaster |

Pursue Innovation to Expand Added Value

- | | |
|--|---|
|  <ul style="list-style-type: none"> · Develop high-added-value products and services |  <ul style="list-style-type: none"> · Drive innovation through partnerships worldwide |
|--|---|

Key Challenges in Management Foundations

Develop Human Resources and Create an Environment Supporting Corporate Activities

- | | |
|--|---|
|  <ul style="list-style-type: none"> · Develop global human resources and engineers |  |
|  <ul style="list-style-type: none"> · Promote diversity · Create a pleasant working environment | |

Establish Standards and Rules That Form the Basis of Sound Corporate Activities

- | | |
|---|--|
|  <ul style="list-style-type: none"> · Ensure high levels of corporate governance and compliance | |
|---|--|

TMEIC's Value Creation Story

TMEIC is building a business model aimed at creating value for customers and all other stakeholders.

Engineering capabilities plus motor and power electronics technology have become core competencies that are supported by our exceptional solutions business, global network and business assets, which have laid a solid platform for profit and value creation. Through the provision of products and services to customers, we seek to help achieve the SDGs and resolve other social issues as well as enhance value as a corporate group.

We believe that these efforts will enable us to build relationships of trust with customers and contribute to the sustainable development of global society as an industrial systems integrator, the ideal we advocate in our corporate philosophy.

Realization of Corporate Philosophy

Build relationships of trust with customers and contribute to the sustainable development of global society as an industrial systems integrator



Increase Awareness of SDGs among Employees

We are taking concrete steps to increase awareness and understanding of the Group's philosophy on sustainability set out in our corporate philosophy and the TMEIC Group's codes of conduct. Training is being provided to accelerate this. In fiscal 2019, prior to adopting the SDGs as a Group-wide guideline, we held workshops focused on the SDGs for employees, particularly division managers.



Realize a Sustainable and Resilient Society

Environmental problems such as climate change, resource depletion, pollution caused by chemical substances and loss of biodiversity are becoming increasingly serious each year. TMEIC recognizes its basic responsibility as a member of society to pass on our irreplaceable earth to the next generation in a healthy state. With this in mind, we aim to contribute to the sustainable development of society by reducing environmental burden in our business activities and providing products and systems that help minimize global environmental load. This philosophy has been codified in our Basic Environmental Policy, which is being implemented Company-wide as we go about our operations.

In terms of reducing environmental burden in our business activities, for instance, we are working to minimize CO₂ emissions in the production process, control the use of regulated chemical substances and implement green procurement. In terms of products and systems that help minimize global environmental load, we are working on the technological development of items that contribute to the improvement of energy efficiency and the proliferation of renewable energy. In particular, we recognize that our key challenges lie in the fields of energy management as it relates to our products, the effective utilization of resources and response to climate change, so these are the areas we are focusing our activities on.

Basic Environmental Policy

As a professional group supporting industrial systems integration, TMEIC promotes activities to help advance a sustainable society. This includes developing and providing excellent environmentally friendly products and reducing the environmental impact of our services and other business activities in order to contribute to the protection and enhancement of the environment.

Enhance Energy Efficiency

TMEIC aims to build a society based on sustainable energy by both realizing a stable supply of electrical energy and achieving harmony with the environment as well as creating next-generation energy services required the world over and new value. Motor and drive systems, one of TMEIC's core products, are being applied to industrial and social infrastructure across the board, from manufacturing plants to power plants and water/sewage pumping stations.

It is thought that motors account for 40-50% of total global power consumption*. In order to reduce power consumption, it is therefore necessary to enable efficient motor control in addition to enhancing the efficiency of the motor itself. TMEIC helps improve energy efficiency in society by developing and providing high-efficiency motors and drive systems as well as system solutions that combine these two.

*According to "Top Runner Motor" paper issued by Japan Electrical Manufacturers' Association (JEMA)

High-Efficiency Motor

The premium efficiency series of motors, which are compliant with the IE3 standard under the “top runner system” set forth in the Energy Conservation Act in Japan, realize approximately 34% less power loss than conventional models. In addition, we are developing high-efficiency products in the IE5 class, which exceeds the IE3 standard. We are also leading the field in the development of non-regulated, high-voltage/explosion-proof motors that comply with top runner standards.

In January 2018, TMEIC won the Ministry of Economy, Trade and Industry Minister Award, the highest distinction in the Energy Conservation Grand Prize awards for fiscal 2017.

> [Top runner motor](#)

<https://www.tmeic.com/products/motors>



Motor Drive System

This system contributes to the energy optimization of the entire factory or plant by improving the energy efficiency of the motor itself on the back of cutting-edge power electronics technology and development capabilities. It can also be customized to fit the needs of the customer. For example, autonomous control functions (voltage and frequency stabilization, power factor and output power control, etc.) make it possible to respond to sudden power load changes, which not only improves the operational efficiency of the facility but also contributes to the reduction of energy consumption.

> [Motor drive system](#)

<https://www.tmeic.com/products/medium-voltage-ac-drives>

<https://www.tmeic.com/products/low-voltage-ac-drives>

<https://www.tmeic.com/products/dc-drives>



Two-Fluid Humidifier (TMfog)

Unlike conventional air-conditioning methods that consume fossil fuels such as steam humidification and steam heating, TMfog reduces the amount of energy consumed since steam is generated from only water and compressed air. This enables water humidification in environments with equipment such as semiconductor manufacturing systems where it was previously difficult to achieve. In March 2021, TMfog was certified as an “L2-Tech Certified Product” by the Ministry of the Environment as a product with leading low-carbon technologies. It is the first humidifier for industrial use to receive the certification.



Spread the Use of Renewable Energy

The Paris Agreement, which went into effect in 2016, stipulates the aim of net-zero greenhouse gas emissions globally in the latter half of this century, with increasing recognition that renewable energy is becoming more widespread around the world. TMEIC was very early in the commercialization of power conditioning systems for solar and wind power generation facilities, thereby contributing to the proliferation of renewable energy. TMEIC's large-scale photovoltaic power conditioning systems (PV-PCS, or PV inverters) have commanded dominant market share in Japan since 2012 as well as top share of the global market in the 99kW+ class in 2014*. The total number of product shipments, including those with international destinations, amounted to 35,000 units in fiscal 2020, with volume exceeding 30GW. This is equivalent to 30 1,000MW-class nuclear power plants. We also provide products such as monitoring and control systems and energy storage systems that aim to resolve issues associated with connection to the power grid and stable power supply alongside proliferation of renewable energy.

* According to IHS TECHNOLOGY PV Inverter Market Tracker-Q1 2015, Preliminary Global Three-Phase High Power (>99kW) PV Inverter Supplier Market Ranking

Photovoltaic Power Conditioning System

TMEIC boasts the dominant share in this sector in Japan, securing an industry-leading 99.0% in conversion efficiency (maximum power conversion efficiency of SOLAR WARE U). Exceptional conversion efficiency even when there is minimal solar radiation helps maximize power generation.

- > Photovoltaic power conditioning system:
<https://www.tmeic.com/industry/renewable-energy>
<https://www.tmeic.com/industry-solution/solar-power-solutions>



Wind Power Converter

The combination of a frequency converter for wind power, which stabilizes unstable power generation, and Static Var Compensator (SVC) for wind power, which suppresses the increase in voltage caused by wind power generation, reduces overall power loss. TMEIC boasts a strong share in Japan for small- and medium-capacity SVC systems (from 500kVA to 2,500kVA).



Large-Capacity Lithium-ion Storage Battery System

This TMEIC battery control system (TMBCS) was developed with various solutions in mind and in consideration of optimal battery capacity, efficiency, safety, battery life and stable operation. Combining it with solar power generation helps to balance unstable power output and enables effective utilization of solar power during a disaster or blackout.



Contribute to Increased Productivity in Industrial Markets

Development and advancement of industrial infrastructure are essential for economic growth. At the same time, environmental deterioration caused by this economic growth is fast becoming a severe global issue.

TMEIC's mainstay motors and power electronics equipment are core products supporting industrial infrastructure. Through system solutions that combine these and other products, TMEIC ensures the quality and safety of customers' production equipment as well as efficient and stable operation, with the aim of enhancing productivity and reducing environmental impact.

We are also taking steps to reduce workload through automation technology and to digitalize special skills and know-how, thereby contributing to better productivity for our customers from both tangible and intangible perspectives.

Industrial Automation Systems

TMEIC offers various industrial information systems for use at our customers' places of work as well as solutions for optimizing and automating tasks based on our extensive knowledge. Saving labor reduces errors in work, improves work efficiency, enhances safety and ensures stable manufacturing quality.

Recently, TMEIC offered solutions to a major Chinese steel company that combines the TMPDS™ (TMEIC Plant Data Management Solution), which enables the collection and visualization of data for the entire facility and systems using the latest AI application technology. In addition, we work to realize a smart factory, including the development of IoT-compatible products.



> Steelmaking automation system:

<https://www.tmeic.com/industry/metals>

> Automation systems for petroleum, chemical and materials industries

<https://www.tmeic.com/industry-solution/automation>

<https://www.tmeic.com/industry/oil-gas>

PlantLogMeister (PLM) Electronic Plant Operation Log

This innovative manufacturing solution involves the digitalization and accumulation of people's knowledge and experience in plant operations, and enables integration of diverse information from the work floor. The product has been developed by TMEIC in collaboration with customers already operating manufacturing plants and contributes to enhanced work efficiency and safe, stable operations. In February 2021, we started to offer and will continue to provide new functions that enable hands-free operation of on-site inspection and work.

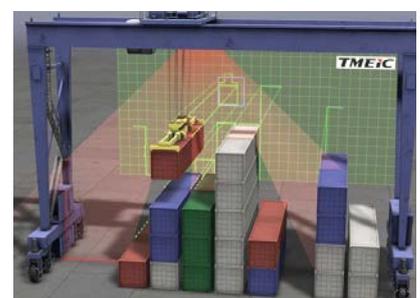
PlantLogMeister

Crane Systems

TMEIC provides various systems to operate cranes for material handling and transportation safely and accurately. We contribute to increased operational efficiency and ensure safety by minimizing noise and shocks when placing items down and controlling deflection angles, braking and trajectory through state-of-the-art technology based on the know-how of skilled operators to assist with driving.

> Crane systems:

<https://www.tmeic.com/industry/crane-systems>



Help Improve Access to Safe Water

With the continued rise in the world's population, there are now more than two billion people who are forced to drink unsafe water*1. Besides this, it is thought that only 40% of the required freshwater resources will be available by 2030 according to the United Nations*2.

In Saudi Arabia, Oman and other places in the Middle East, tap water is a mixture of desalinated seawater and groundwater. Rapid population growth in Saudi Arabia in particular is leading to the serious issue of water shortage.

TMEIC supplies electrical equipment such as motors and electrical transmission and distribution systems to desalination plants in the Middle East, thereby improving access to safe drinking water.

1. <https://www.unwater.org/water-facts/water-sanitation-and-hygiene/>
2. <https://www.un.org/sustainabledevelopment/water-and-sanitation/>

> Motor drive system

<https://www.tmeic.com/products/medium-voltage-ac-drives>

<https://www.tmeic.com/products/low-voltage-ac-drives>

<https://www.tmeic.com/products/dc-drives>



TMEIC provides motor drive systems for the enhanced control of high-pressure motors used for pumps in water treatment facilities.

Contribute to the Spread of Sustainable Transportation

Serious efforts are being made to reduce CO₂ emissions with the escalation of global warming. In addition to a modal shift in the movement of people and goods to modes of transport with minimal environmental impact, initiatives include using more environmentally friendly energy for vehicles and introducing autonomous driving to realize a more energy efficient style of getting around.

TMEIC provides an automobile testing system to check power, fuel efficiency and endurance, thereby supporting the stable production of safe vehicles. We have highly advanced tests for radio-frequency noise in electric vehicles, hybrid electric vehicles and fuel cell vehicles that are based on an extensive track record and world-class wave suppression capability. We are also working on the development of a testing system for autonomous vehicles.



TMEIC provides various automobile testing systems essential for the stable production of safe vehicles.

Enable Energy-Saving Local Production for Local Consumption

Alongside concerns over the depletion of resources caused by global population growth and economic development, ensuring sustainable production and consumption patterns through the efficient utilization of resources has become a pressing social issue. TMEIC's products use a high volume of exhaustible resources such as metal. In addition to striving to save resources and improve the recycling performance of products, we take steps to ensure the effective use of resources in the production process to contribute to the resolution of this problem.

Synchronous Reluctance Motor

These motors use magnetic attraction (reluctance torque) generated by the difference in magnetic resistance due to rotor shape, and since they do not employ permanent magnets, they are excellent in terms of resource conservation (no rare earth materials). TMEIC adopts a unique structure that realizes IE5-level efficiency, a first for medium- to large-capacity synchronous reluctance motors (75kW class).



Gearless and Utility-free Motor and Drive Systems

In order to drive large compressors that rotate at high speed, TMEIC adopts an ultra-high-speed, large-capacity motor and variable-speed drive system without the use of step-up gears, normally a prerequisite, to directly drive the compressor. The system is more energy efficient than steam and gas turbines and reduces maintenance and operational costs, helping to optimize the energy balance. We have also developed a utility-free motor that eliminates the need for utilities such as lubricating oil and water by using magnetic repulsion on the motor's bearings and adopting a forced air cooling method to handle heat generated in the motor itself. It can also be applied to harsh environments as well such as deserts and extremely cold regions of other countries.



> [Motor and drive systems for the oil and gas industry:](https://www.tmeic.com/industry/oil-gas)
<https://www.tmeic.com/industry/oil-gas>

Initiatives for Local Production for Local Consumption in India

In India, TMEIC established a motor factory in 2016 and a power electronics factory in 2017 to promote local production for local consumption in the Indian market. Both factories have a high local content ratio for parts while also creating around 500 jobs for local people. We have also introduced solar power generation systems that cover most of the power required in the power electronics facilities. In essence, we have realized next-generation energy-recycling factories that produce and consume energy locally in the manufacture of products. These initiatives not only enable the efficient utilization of exhaustible resources but also improve the ability to respond to the standards and regulations of respective countries and regions as well as customer needs, reduce logistics costs and minimize energy consumption in logistics.



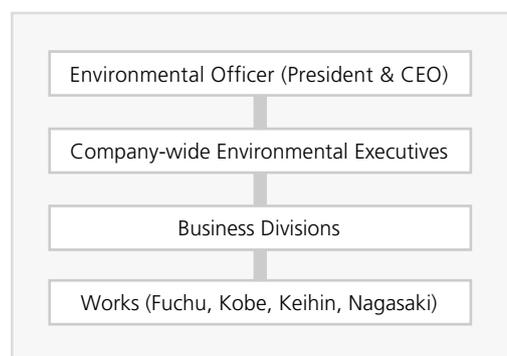
TMEIC Factory in India

Help Mitigate Climate Change

TMEIC takes global environmental issues such as climate change and resource depletion very seriously, and we are working toward our goal of reducing energy consumption intensity by at least 1% per year over the medium to long term based on the Energy Conservation Act in Japan. As a result of such initiatives, TMEIC has received the highest rank of S class (company with excellent energy conservation) for three consecutive years in the evaluation system for classifying businesses based on the Energy Conservation Law by the Ministry of Economy, Trade and Industry.

	fiscal 2017	fiscal 2018	fiscal 2019
Classification (S class: Reduce the five-year average unit by or over 1% per year)	S class (-2.7%)	S class (-4.2%)	S class (-5.5%)

Environmental Management Promotion System



In order to promote environmental activities across the organization, TMEIC implements environmental management that involves total employee participation and has the President serve as the top environmental officer on a Company-wide basis.

Create a Society Resilient to Disaster

There has been a spike in large-scale power outages in recent years due to unprecedented forces of nature characterized by earthquakes, tsunamis and floods caused by torrential downpours. Advancements in modern society are underpinned by electrical power and without a stable supply 24 hours a day and 365 days of the year, there would be major upheaval in all realms of social activity. Based on the idea of preparing in advance for unexpected disasters, TMEIC provides equipment that ensures a continuous supply of power in the event of a momentary voltage sag or a blackout caused by a natural phenomenon such as a typhoon, lightning strike, or snow and ice. This equipment is also effective if the power has been cut off in a disaster. In addition, we believe that combining a power generation system using natural energy such as solar or wind power with a power storage system can help ensure a stable power supply in the event of a prolonged power outage during a disaster.

Uninterruptible Power Supply (UPS) Systems

These systems provide continuous power for a certain period to connected equipment in the event of external power supply problems such as a blackout or voltage sag and are used to keep important essential equipment running. TMEIC's UPS systems cover from small capacity to large capacity needs.

> **Uninterruptible Power Supply (UPS) systems:**
<https://www.tmeic.com/products/ups-systems>



Multiple Power Compensator (MPC)

The Multiple Power Compensator (MPC) features high efficiency, high switching speed and can handle large capacity. All of TMEIC's MPCs achieve groundbreaking conversion efficiencies of at least 90%. In December 2020, we started to offer a power stabilization system which combines an MPC and emergency power generator. The system stabilizes the factory power supply from momentary power interruptions to prolonged power outages, enabling operations to continue and contributing to business continuity planning (BCP) measures in the event of a disaster.



Social Contribution Activities

TMEiC engages in volunteer and social contribution activities for the purposes of interacting and maintaining a close relationship with the local community, as well as contributing to the advancement and enhancement of the regions in which we conduct business.

Local Volunteer Activities

We regularly participate in a variety of volunteer activities including cleanup activities around our facilities and our commuting routes, volunteering time and skills with a local nonprofit organization and giving a training course to university students.



Participating in local cleanup activities in Japan



Giving a training course to university students in Thailand



Building out walls with a local nonprofit organization in the United States



Donation of computers to a primary school in China

Disaster Support

We make donations to areas affected by large-scale natural disasters.

Joint Research with Universities (Research Labs)

We conduct research and development together with the research labs of universities with the aim of enhancing and developing academic research and education.

Pursue innovation to Expand Added Value

The modern age is often referred to as the age of volatility, uncertainty, complexity and ambiguity (VUCA), in which economic and environmental changes occur at breakneck speed and the future is difficult to predict. TMEIC has embarked on initiatives to bring further innovation to all management activities in order to overcome various changes in the environment. To this end, we are making innovative improvements across the board, from sales and R&D to production and fundamental management foundations. In addition to providing high-value-added products and services, we will work to enhance corporate value as a company that plays an integral role for customers and society at large.

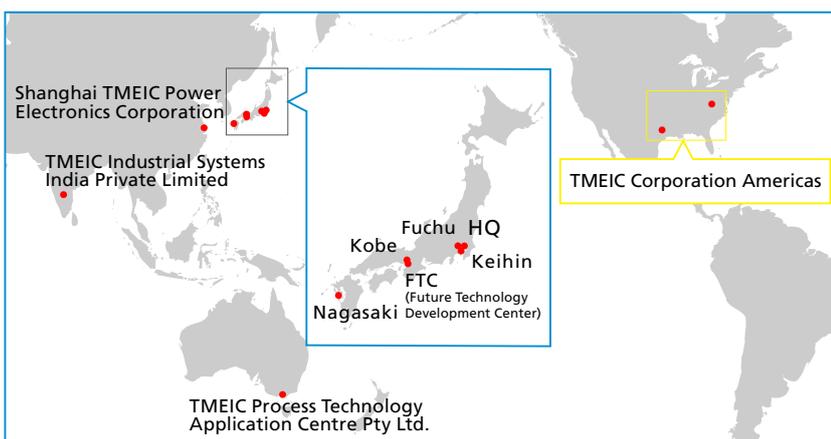
Develop High-Value-Added Products and Services

TMEIC provides optimal solutions for customers based on systems and products groups that leverage our strengths in basic technology. In recent years, we have also started offering high-value-added products and services that make use of the Internet of Things (IoT) and Artificial Intelligence (AI), and we are engaged in R&D with a view to further reinforcing these domains. We command a high share of the Japanese market in the field of electrical equipment for manufacturing plants. We also aim to continue to develop the market on a global basis. To achieve this, we are engaging in R&D at a level that is difficult for others to emulate. This includes striving to enhance the quality, performance and efficiency of our products; promoting product lineups specific to each region; developing products that meet the standards and the state of electrical power in respective countries; and strengthening services and support. We also are promoting innovation in our production processes, such as the introduction of shipping inspection robots, as a part of our efforts to improve product quality by transforming our factories into smart digital factories.

R&D System

At TMEIC, R&D is led by each business division in order to create the optimal system for each business domain. In addition to establishing Company-wide rules such as regulations concerning R&D operations, the Technology Management Division formulates and manages annual Company-wide development policies. Each business division produces a policy for technology based on a future vision and direction that also takes into account priority strategies and management objectives stipulated in the Company-wide development strategy. Based on this, an R&D plan is created and implemented. We also hold Company-wide reporting sessions to showcase development achievements and share R&D information once a year.

Global R&D Bases



R&D Categories

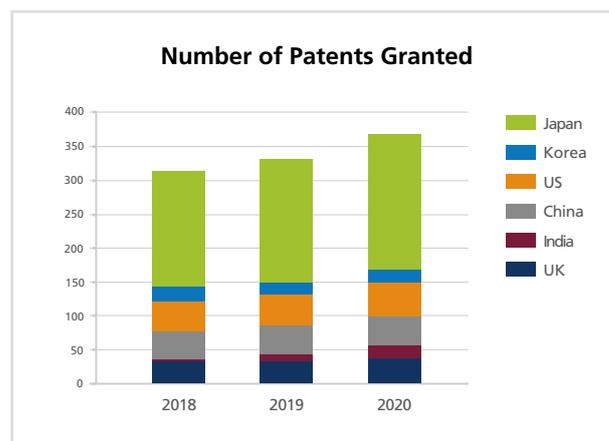
1. Development of elemental technology
2. Creation and development of new markets
3. Development of new business
4. Development of next-generation technology
5. Strengthening competitiveness
6. Development of production innovation technology

Intellectual Property

In managing its intellectual property, TMEIC is conscious of: (1) complying with laws and regulations concerning intellectual property rights; (2) actively protecting and utilizing the results of intellectual activities; and (3) respecting the intellectual property rights of other companies. These provisions are also stipulated in the TMEIC Group's codes of conduct.

In addition, TMEIC focuses on strengthening intellectual property capabilities overseas in line with the rapid growth of overseas business in recent times. In order to protect our technology in the areas of the world in which we operate, we are striving to secure intellectual property globally for the TMEIC Group. This includes not only filing overseas for patents acquired in Japan but also increasing the number of patent applications by local subsidiaries.

Management of intellectual property is carried out by the Technology Management Division as well as the intellectual property management officer in each business division and Group company, including local subsidiaries. The Technology Management Division is responsible for planning and promoting policies and strategies related to intellectual property, dealing with contracts and disputes, as well as managing patent information and other areas related to intellectual property rights. Each business division performs evaluations when seeking to acquire rights and manages intellectual property based on respective business operations and products.



Quality Control

TMEIC is fully committed to improving quality from the customer's perspective. We have established a Company-wide policy for quality and are building an operating a quality management system in which the President serves as chief executive officer and the Chief Technology Executive is responsible for implementation of the system. Company-wide targets for quality are set twice a year based on the aforementioned policy and each division formulates clear goals and plans in line with these targets that it works towards. The results of activities are evaluated at management review meetings held twice a year as a means to make improvements. We also hold Company-wide technology and quality meetings every month to strengthen information sharing internally.

Moreover, TMEIC has acquired accredited ISO9001 certification, an international standard for quality management systems, at several locations. In terms of product safety, we have established CPL* based regulations. The internal division that receives a report about a CPL-related accident regarding a product or service from a user, for instance, provides the necessary information and takes appropriate measures such as issuing a product recall, raising caution or displaying warnings.

* CPL is an abbreviation combining CL (contractual liability) and PL (product liability).

Policy on Quality

1. Promote activities by giving top priority to compliance in quality.
2. Enhance customer satisfaction (customer experience (CX) improvement).
3. Ensure safety and reliability throughout the product and service Lifecycle by creating quality through full-employee participation.
4. Continue striving to improve technology and operational processes with the aim of providing the best systems, products and services.
5. Seek the root cause of any quality-related problems that arise and make essential improvements.
6. Develop simple and effective quality assurance activities.

List of Business Locations with ISO9001 Certification

- Head Office
- Fuchu Works
- Keihin Works
- Kobe Works
- Nagasaki Works
- Future Technology Development Center (FTC)

Enhance Customer Satisfaction

TMEIC aims to enhance customer satisfaction by providing safe, useful products, systems and services that meet diversified needs by reflecting feedback in idea generation. To this end, we regularly check the needs and level of satisfaction of our customers as a means to make improvements in products and services. Going forward, we will strive to further develop and maintain a service menu tailored to customers and product attributes in order to bolster customer services. We opened a call center for photovoltaic power conditioning systems in August 2019 and for motors and motor drive systems in April 2020. We aim to gradually expand the range of products we handle at these sites so that we can eventually deal with all products in an integrated manner and provide early maintenance services.

Drive Innovation through Partnerships Worldwide

At TMEIC, we believe that joint development and research with domestic and overseas companies, research institutes and universities can help us strengthen the strategic elements of our technology as well as our applied technology, thereby driving innovation. As such, joint partnerships are a strong area of focus. In particular, in the fields of the Internet of Things (IoT) and Artificial Intelligence (AI), where technology uptake continues abound, we are bolstering collaboration with other companies and universities with the aim of developing new technology. At present, we are working on such themes as further boosting efficiency in motors, power device technology and basic technological research. We also actively participate in international initiatives and contribute to technological innovation at a world-class level. Pertinent Company employees are dispatched to the International Electrotechnical Commission (IEC) and Institute of Electrical and Electronics Engineers (IEEE) to work together on enhancing research, development and technology that can stimulate progress and innovation to society. One of our employees was the first female in the heavy electrical industry in Japan to receive the title of Fellow at IEEE in 2018, and a second employee received the title in 2021. This is indicative of our efforts to enhance our presence within the international academic community.



Noriko Kawakami, Senior Fellow at TMEIC, was the first female to become an IEEE Fellow in Japan's heavy electrical industry.



Shinzo Tamai the second person at TMEIC to be a Senior Fellow.

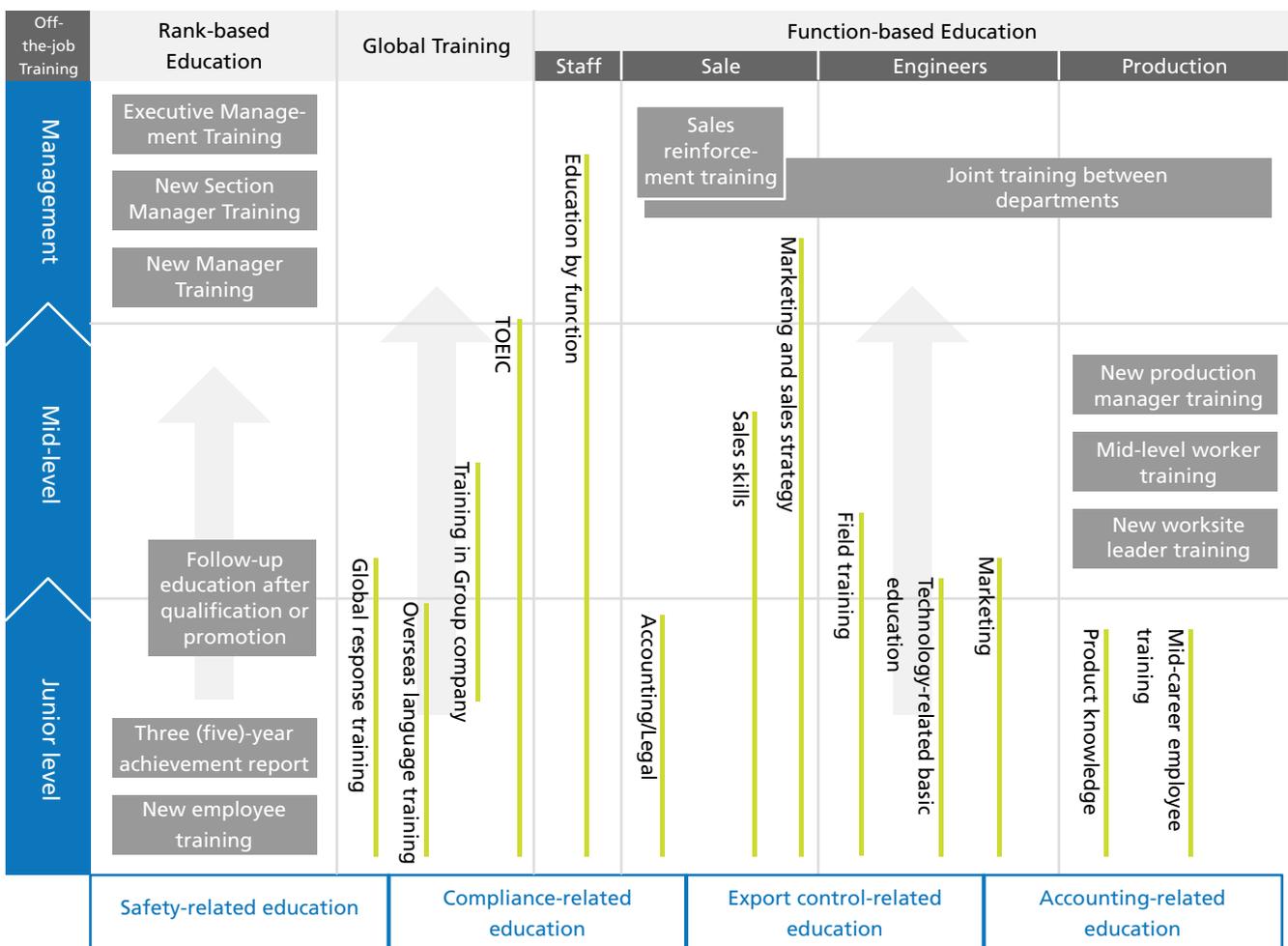


Develop Human Resources and Create an Environment Supporting Corporate Activities

TMEIC stipulates the importance of respecting basic human rights, creating a safe and comfortable work environment and providing ongoing education in the TMEIC Group's codes of conduct so that each employee can maximize his or her potential and play an active role.

Human resources that help drive innovation are seen as our greatest assets. Training personnel is a critical mission of our managers, with this being an ongoing Group-wide drive. Our education and training systems serve to enhance skills by providing a diverse curriculum befitting each employee's level with a focus on rank and function. The development of global human resources is one of our priority issues, and in addition to opportunities to learn through our global training program in Japan, we also conduct overseas programs and interchanges to promote learning and personal growth.

Education System



On-the-job Training	Mentor system for new employee training and new employee education plan and system		
Self-development	Subsidy system for language self-development	Promotion of use of training and education benefits system	Subsidy system for qualification acquisition

*TMEIC subsidiaries have different training systems based on respective company structures and locations.

Develop Global Human Resources and Engineers

TMEiC also conducts business from bases in other countries aside from Japan. Overseas business now accounts for nearly 50% of all business following rapid growth in recent years, and the development of global human resources has therefore become a pressing issue. We are currently making improvements to our education and training in order to increase the number of personnel who can take on leadership roles in expanding business overseas. Specifically, we have an international on-the-job training (OJT) system in which employees are dispatched to a local subsidiary overseas for a period of six months as well as a language development program in which employees are sent to a language-learning facility in the United Kingdom or the United States.

Education is also provided at the divisional level with the purpose of transferring the necessary skills and knowledge to enhance capabilities. Additionally, we are developing an operational support system that leverages the skills of experienced workers.

Global Education System

Training system	Details
International OJT training system	<p>With this system, employees are dispatched to overseas subsidiaries as trainees for six months.</p> <p>Trainees are given individual training themes and are then responsible for actual operations at the local subsidiary that are based on each respective theme (practical training). This serves to boost their language skills, acquire the ability to do business in English or Chinese, and increase capacity for adapting and responding globally.</p>
Overseas language development program	<p>This training system aims to improve language skills in a focused manner through a four-week or 10-week program at a local language center in the United Kingdom or the United States. Lessons are given at individual and small group (4-6 people) levels and cover a wide range of abilities. The curriculum can be semi-customized according to language level.</p>
Subsidy system for language self-development	<p>With this system, a portion of the costs of a self-development English language course is subsidized if it is one that has been approved by management. Some employee groups also use this system to hold small-group English conversation lessons using a foreign instructor at a conference room after work.</p>



Overseas language development program (A homestay with a local family gives the chance to experience natural English as well as local life.)



Mentor system (A specialized mentor provides guidance for the first three years of work.)



New employee training (basic training for three months to develop engineers)

Promote Diversity

TMEIC promotes diversity by encouraging employees with different backgrounds to respect one another and providing the opportunity for each individual to shine, which serves to create innovation and drive corporate growth. We aim to be an organization where people with diverse values can coexist in harmony.

Employing Persons with Disabilities

In Japan, TMEIC actively employs persons with disabilities. By accepting and respecting diversity, we are working to create a work environment in which all employees can feel motivated and happy. At TMEIC, persons with disabilities do not solely engage in specifically limited operations but also in regular work according to individual ability. Our employment rate of persons with disabilities exceeds the legally mandated level.

Hiring Foreign Employees

TMEIC is expanding business globally, hiring exceptional human resources in different countries and regions to stimulate development. In addition to recruitment by local subsidiaries, TMEIC also takes on board people from other countries in Japan.

Create a Pleasant Working Environment

Work-Life Balance and Work Style Reform

TMEIC is implementing work style reform in Japan with the aim of creating a positive virtuous cycle whereby each employee can exercise his or her full potential and work with efficiency and clarity, which helps ensure a good work-life balance and a refreshed outlook, thereby enabling high-value-added work, enhancing productivity and driving ongoing corporate growth.

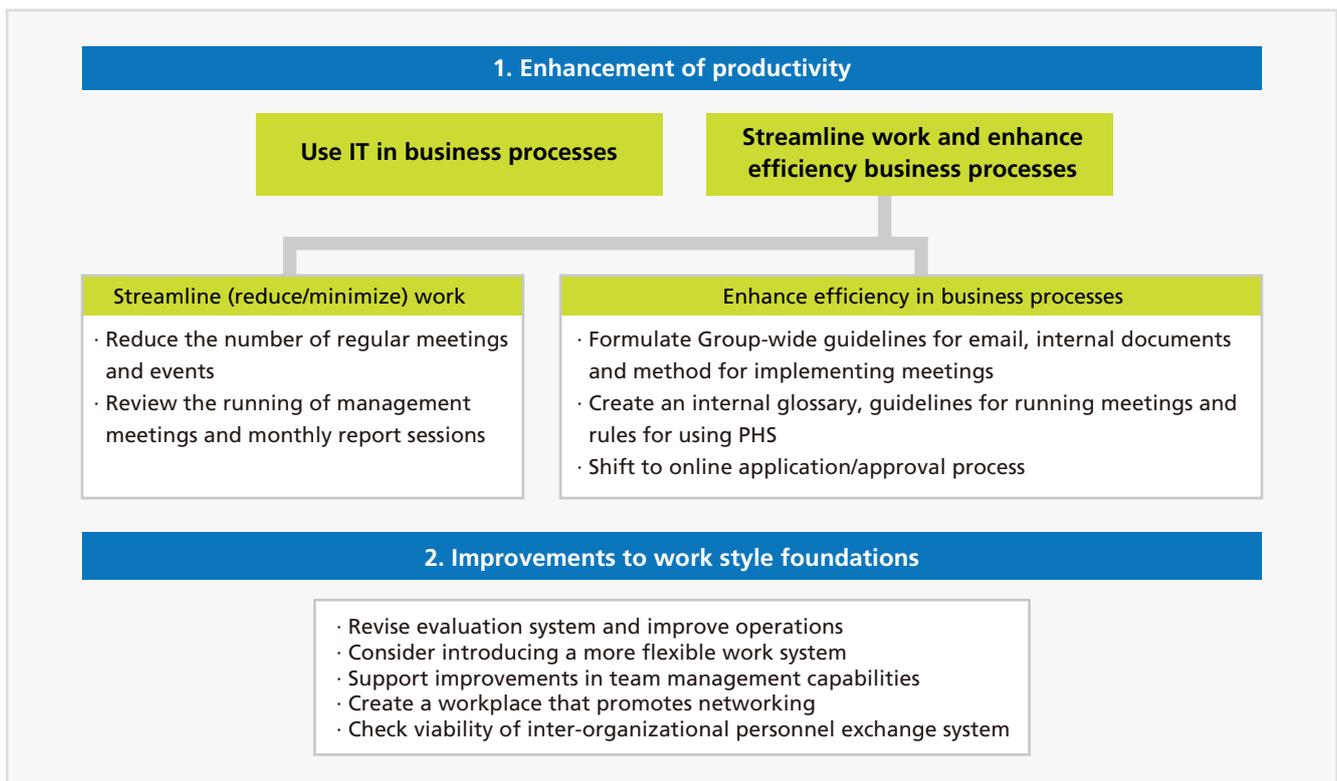
We aim to create a rewarding work style by taking steps that focus on improving efficiency in business processes, introducing IT to boost productivity and shifting to more high-value-added operations. Specific measures are formulated in light of the findings from an employee satisfaction survey (engagement survey) in Japan.

In addition, we have established a work-from-home system and re-employment system in Japan allowing the return of retirees within a three-year window of retirement with the objective of realizing a good work-life balance.



Work-from-home system

Activities Promoting Work Style Reform



Enhance Employee Satisfaction

TMEIC has been conducting an employee satisfaction survey, or engagement survey, every other year since fiscal 2017 to monitor employee understanding of corporate measures being taken and raise awareness of these measures throughout the organization with the aim of making improvements to problem areas. We added a section concerning work style reform to the first survey focused on engagement to help us construct concrete measures for changing work styles. Following the fiscal 2019 survey, we analyzed responses by job type and other factors to make further improvements to organizational culture.

Occupational Health and Safety

The TMEIC Group has established a basic occupational Health and Safety Policy in an effort to maintain employee health and safety.

Occupational Health and Safety Management System

In Japan in fiscal 2011, TMEIC acquired OHSAS 18001 certification, an international standard for occupational health and safety management systems, with the aim of creating a workplace environment free of occupational accidents and health issues. In fiscal 2019, TMEIC completed the shift to ISO 45001 (2018 version). Our occupational health and safety management system is headed by the president, with day-to-day efforts undertaken at each business location under a general health and safety officer. At the end of each year, we hold a Company-wide health and safety committee meeting to discuss basic health and safety policies, objectives and targets so as to prevent accidents and enhance employee health. In concrete terms, all employees undertake risk assessments of work processes and environment, and we hold lectures and events concerning risk response and health. In 2020, the injury frequency rate was 0.43*1 and the injury severity rate was 0.00*2 in Japan.

1. Number of deaths and injuries per one million actual cumulative working hours resulting from occupational accidents
2. Work days lost per 1,000 actual cumulative working hours; indicates accident severity

FY2021 Company-wide Health and Safety Policy

Basic Ideal

We place highest priority on human life, safety, and compliance in all of our business activities based on the philosophy of "Respect People." With this in mind, we create and promote a more safe and pleasant workplace environment to ensure employees' health.

Policies

As an industrial system integrator, our main business line is to develop, design, produce, and install electric machinery systems and control systems for factories. Serious hazardous factors in handling heavy materials and high-voltage devices are dropping, being caught/ rolled up, electric shock, and involving a highly dangerous work environment.

It is required to fully observe the Industrial Safety and Health Law and other related laws and regulations, and also necessary requirements related to our company so that all our employees make efforts to promote positive safety and health activities regarding inherent hazardous sources by fully grasping all these facts. At the same time, we will establish the safety and health management system by setting necessary targets and making sustainable efforts through all members' participation towards eliminating labor accidents and occupational diseases.

Guidelines

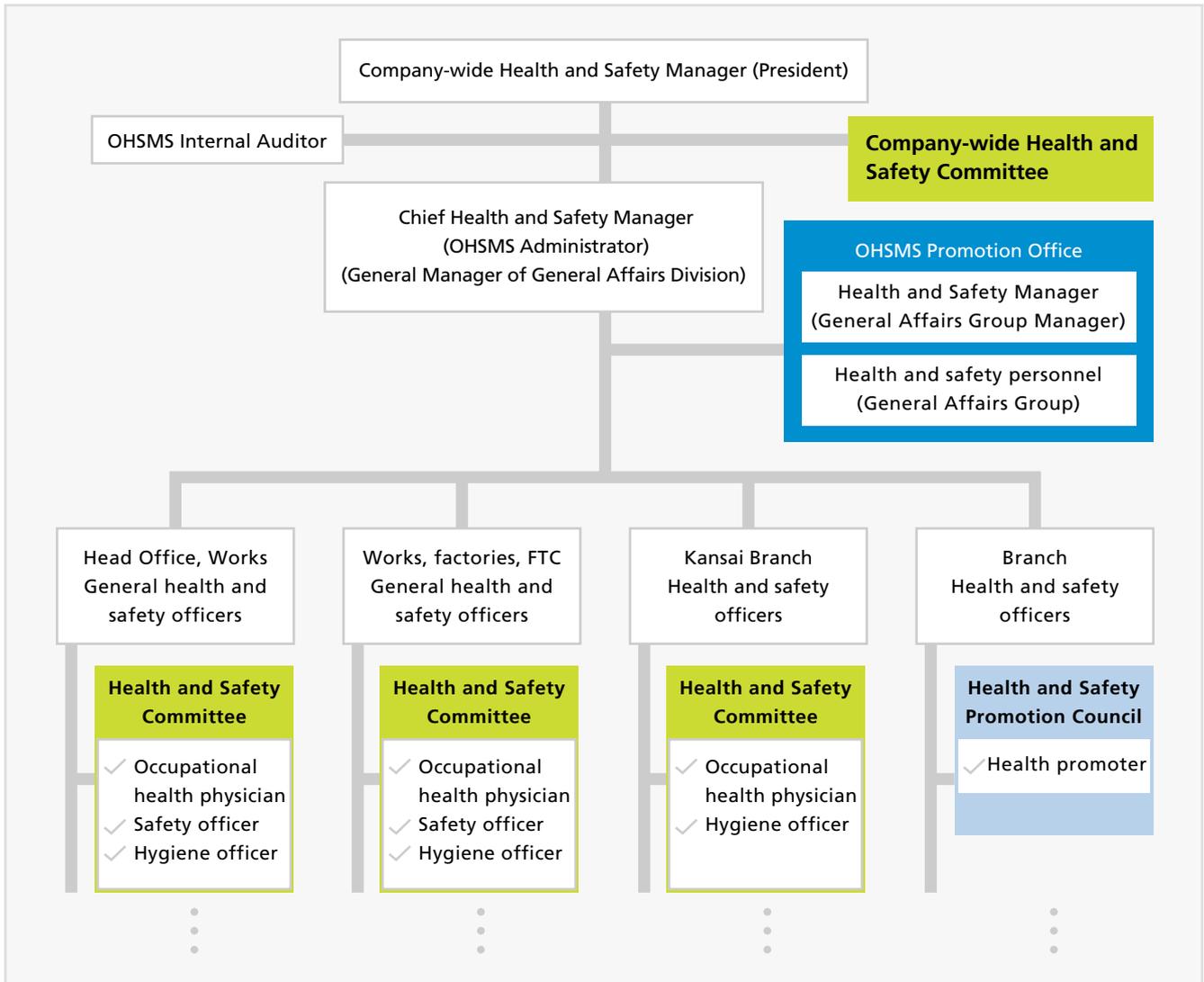
1. In order to secure safety and health in our workplaces, we will identify risks and hazardous factors through risk assessments by taking into account all possible situations by thoroughly grasping the characteristics of handling extremely heavy materials, high voltage, and chemical substances on the production frontline.
With the aim of establishing an intrinsically safe workplace, we will endeavor to reduce risks by making active investments in resources to identify the sources of risks.
2. We will work to create an environment that allows the smooth sharing of information among workers including all relevant people of all generations and all workplaces including our affiliates through active two-way communications, and we will create the workplace climate to protect fellow workers by mutually calling attention without tolerating unsafe situations and unstable activities.
We will endeavor to hand down the basic technologies for securing intrinsically safe production facilities, while at the same time, raising awareness of latent risks in all our routine operations by taking into account the examples of labor accidents attributable to production facilities that are occasionally observed at other companies.
3. We will actively implement health management support measures, including prevention of exposure to secondhand smoke and health education, as well as measures to prevent the spread of infectious diseases in order to maintain and promote health in both mental and physical aspects in our workplaces.
4. We will realize suitable education and training programs in order to further enhance the awareness of all our employees and other related people regarding the roles required for each and every person to play.

April 1, 2021


Masahiko Yamawalti
President and CEO

Toshiba Mitsubishi-Electric Industrial Systems Corporation

Occupational Health and Safety Management System



Company-wide Health and Safety Committee meeting



Risk assessment training



Mental Health Initiatives

TMEIC considers the mental health of employees to be vital to a happy and dynamic workplace and has formulated a plan to promote mental health as part of our commitment to employees' mental health. Based on the national policy in Japan, we carry out education from two key perspectives: (1) Education to improve the ability to recognize mental health issues and (2) Education on how supervisors and managers can appropriately care for employees under their guidance. We are also striving to improve the work environment based on the findings of stress check group analyses conducted once a year.

Human Resources-related Data

Number of Employees

	2018	2019	2020
Japan	2,686	2,759	2,771
Global	4,053	4,146	4,255

Occupational Injuries in Japan

	2018	2019	2020
Injury frequency rate*1	0.88	0.51	0.43
Injury severity rate*2	0.00	0.02	0.00

1. Number of deaths and injuries per one million actual cumulative working hours resulting from occupational accidents

2. Work days lost per 1,000 actual cumulative working hours; indicates accident severity

Establish Standards and Rules That Form the Basis of Sound Corporate Activities

The TMEIC Group strives to ensure highly fair and transparent corporate activities, with exceptional corporate ethics and compliance as the basis for management. We aim to build a more effective corporate governance system by strengthening efforts in such areas as internal control, risk management and information management. At the same time, we attach great importance to protecting the interests of our business partners and all other stakeholders.

Corporate Governance

Board of Directors and Audit & Supervisory Board

TMEIC introduced an executive officer system in fiscal 2017 with the aim of strengthening corporate governance. This means that the roles and responsibilities of the Board of Directors and the Board of Executive Officers have been separated. The Board of Directors focuses on management supervision such as making decisions on important matters and other areas as well as business execution while the Board of Executive Officers is engaged in the execution of business in line with the decisions of the Board of Directors.

The Board of Directors, which consists of six directors, including two part-time directors (as of April 2021), holds discussions and makes decisions regarding management issues for the entire Group, and also supervises the execution of business by the representative director, executive officers and Group companies. The Audit & Supervisory Board, which comprises four members, including three outside corporate auditors (as of April 2021), audits the execution of duties by directors as an independent body.

Internal Control and Risk Management

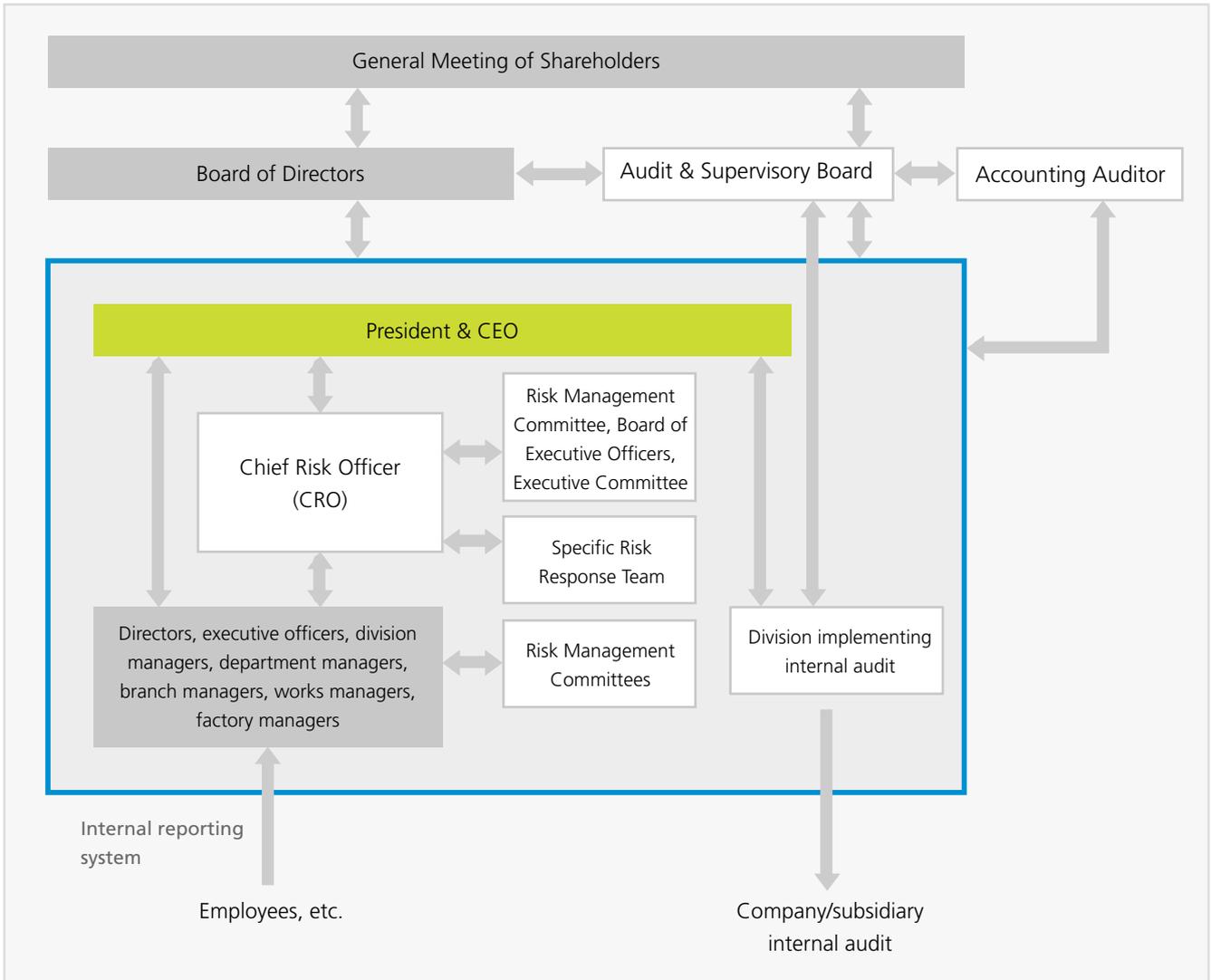
The Board of Directors, which decides on important matters and policy for the Company, along with the Board of Executive Officers, which executes business in line with these policies and the decisions made regarding these important matters, and the Audit & Supervisory Board, which audits the execution of duties by the directors, each implement a reciprocal checking function as they go about their business activities. The Internal Audit Group inspects the business activities of the Company and its subsidiaries to make sure they are being undertaken appropriately in accordance with laws, regulations and internal rules.

TMEIC classifies management risk into five categories: (1) Risk in business operations; (2) Risk of damages due to product/service; (3) Risk in information management; (4) Safety and work injury related risk; and (5) Other risk. Each division is tasked with identifying the risks that have already been identified as well as potential risks, and verifies the latest risk status and countermeasures. It is the responsibility of each division manager to respond to and control risks in the course of routine operations, and to carry out risk prediction and prevention activities as well as self-assessments.

Information related to risks is shared and management activities checked on a regular basis by respective Risk Management Committees, which convene on a Group-wide basis and within each division, under the guidance of the Chief Risk Officer (CRO), who is responsible for risk management for the entire Company.

In addition, when a CSR-related issue or other important matter that may cause significant damage to management arises, each division manager reports to the President, CRO and Audit & Supervisory Board members within a system created to ensure swift response. These matters are defined as operational rules together with the risk management system and are codified within the Rules for Building an Internal Control System and the Risk Management Regulations.

Internal Control and Risk Management System



Group Governance

TMEIC seeks to ensure uniform management policies and decisions as well as generate synergies through Group governance covering affiliates in Japan and overseas, and is committed to enabling appropriate communication with these affiliates through the Board of Directors meetings of each affiliate and other regular meetings. In addition, Communication Rules have been formulated for TMEIC and its affiliates as a guideline for Group governance, while audits are carried out regularly by the Internal Audit Group to confirm the status of compliance with these rules. Further to this, top management from overseas affiliates come together for meetings to discuss medium-term management plans and progress, and there are also frequent global meetings within each division, which serves to further strengthen Group ties in terms of management policy and strategy.

Compliance

In order to be recognized as a responsible member of society and to continue growing into the future, each executive officer and employee of TMEIC must comply with all laws and regulations and carry out fair and sincere business activities based on exceptional ethical standards and in a dignified manner that gains trust. At TMEIC, we have formulated and are implementing the TMEIC Group's codes of conduct and various company rules related to compliance so that all executive officers and employees are fully aware of the role TMEIC has and have guidelines for behavior as they go about their daily operations.

Additionally, in order to ensure thorough awareness of compliance Company-wide, we provide training to executive officers and employees that utilizes e-learning in such areas as the TMEIC Group's codes of conduct, export control, subcontracting laws and accounting. Besides carrying out independent audits on legal compliance, the Internal Audit Group also conducts third-party audits as part of regular efforts to confirm the status of legal compliance.



Initiatives for Free Competition and Fair Trade

TMEIC has included within the TMEIC Group's codes of conduct provisions concerning compliance with antitrust laws, transactions with government officials as well as the prohibition of bribery. In terms of compliance with antitrust laws and prevention of bribery, we have established and are implementing company rules that stipulate in detail the items and internal procedures that TMEIC executive officers and employees must adhere to. In addition to complying with the laws and regulations of each country and region we operate in, we strive to ensure free and fair competition based on sound business practices and social norms.

Appropriate Accounting

TMEIC has set forth provisions for appropriate accounting in the TMEIC Group's codes of conduct with the aim of improving transparency in tax-related matters. We comply with the relevant laws and standards of each country and region we operate in, and conduct appropriate accounting procedures and ensure appropriate reporting on accounting matters in line with generally accepted accounting principles. With regard to management of transfer pricing, we comply with OECD guidelines and the laws and regulations of the country of each Group company, paying appropriate taxes and maintaining good relations with tax authorities.

Response to Antisocial Forces

TMEIC stipulates that it will sever all ties with antisocial forces in the TMEIC Group's codes of conduct. We have created a manual on basic rules and response methods that is provided Company-wide so that all executive officers and employees can respond appropriately in an emergency situation.

Green Procurement

TMEIC has included within the TMEIC Group code of conduct “Promotion of Procurement Activities with Due Consideration for the Environment” as one of our procurement policies. Since cooperation and collaboration with our suppliers is essential for these activities, we confirm the status of their environmental conservation efforts through the “Green Procurement Survey” and use it as a reference in making changes.

> Procurement Policy

<https://www.tmeic.com/procurement-policy>

Response to Conflict Minerals

Section 1502 of the U.S. financial regulatory reform bill (Dodd-Frank Wall Street Reform and Consumer Protection Act) concerning conflict minerals was enacted in July 2010 and the U.S. Securities and Exchange Commission (SEC) adopted the final rule requiring compliance from and after January 2013, thereby making it mandatory for certain companies to report and disclose information regarding conflict minerals. The TMEIC Group asks vendors to confirm that their products (including their upstream supply chain) do not contain any minerals such as tin, tantalum, tungsten and gold that originate from or have any association to conflict in affected and high-risk areas. We also consider as serious issues the human rights violations committed by armed groups in the Democratic Republic of the Congo (DRC) and its surrounding countries as well as the environmental destruction caused. As such, we strive to ensure transparency in the supply chain so as not to exacerbate or be part of these problems that involve inhumane acts. We also promote responsible procurement of minerals through such efforts as investigating individual projects as required.

Supplier Reporting System

TMEIC has established a Supplier Reporting System so that its suppliers can make a report if there has been a violation or suspected violation of laws/regulations, code of conduct, procurement policy, transaction agreement or corporate ethics, etc., by a related party. The personal information of the reporter will not be disclosed to anyone outside the executive office for the system without the consent of the person involved. The content of the report will be taken extremely seriously and care is taken to ensure that the reporter or his/her department is not treated disadvantageously.

Response to UK Modern Slavery Act 2015 in Supply Chain

TMEIC fully understands the important role played by the supply chain in accordance with our corporate philosophy of building relationships of trust with our customers. Pursuant to the United Kingdom (UK) Modern Slavery Act 2015, TMEIC Europe Ltd. (International Procurement Office in England) has been playing the central role to remain transparent about our efforts to eradicate slavery and human trafficking in any part of our supply chains. We actively seek out vendors with the same ethos as our own.

Internal Reporting System

TMEIC has established an internal reporting system in Japan that includes a hotline for counseling on risk-related matters in which executive officers and employees can make reports or seek advice on matters they suspect may have breached compliance. Efforts are made to ensure everyone is aware of the system Company-wide. All communication is anonymous thanks to the use of an external contact (a law office) to complement the internal contact (the Corporate Legal & Compliance Division). In addition, we make sure that no one is treated disadvantageously simply for providing information in good faith and for a legitimate purpose.

Export Control

The TMEIC Group has formulated a compliance program on export control for the purpose of maintaining international peace and security, and thoroughly adheres to laws and regulations concerning export control in the countries and regions it operates in. In our export control system, the president serves as the general manager and a director serves as export control and audit officer. A dedicated person in each business division and factory takes care of cargo and technology classification while staff departments promote export control and business divisions are responsible for providing export control personnel. All exports are rigorously checked by multiple people with extensive knowledge in product planning and performance as part of a strict screening and approval system.

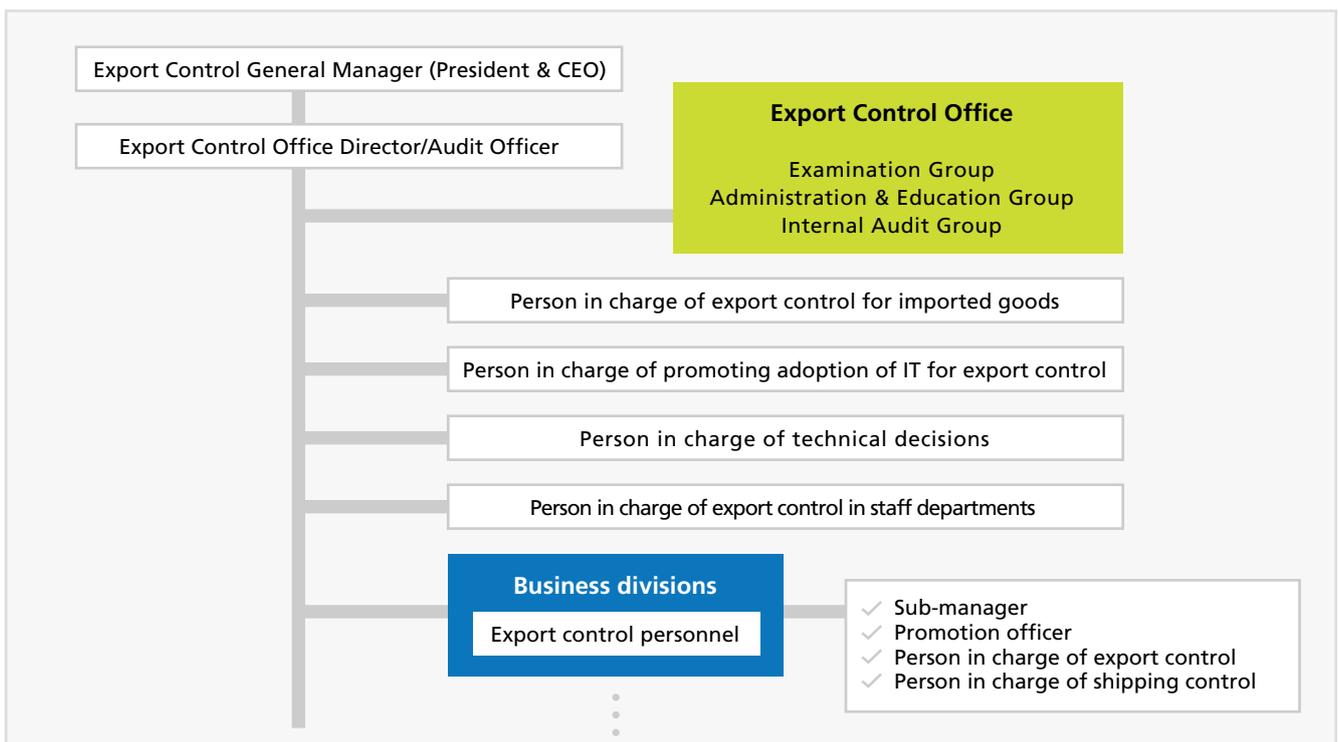
TMEIC has acquired a Special General Bulk Export License from the Ministry of Economy in Japan, Trade and Industry regarding approval for list-controlled goods and technologies. The license serves as proof that internal export control regulations have been established and that strict compliance has been shown relative to foreign exchange laws and other pertinent areas.

Education on Export Control

In recognition of the importance of export control and in order to increase awareness of the TMEIC Group's codes of conduct and export control regulations, the Export Control Office provides practical training for TMEIC export control personnel every year as well as e-learning and other export control-related education to all TMEIC employees.



Export Control System



Information Security

TMEIC recognizes the asset value of all information handled in the process of executing business, including personal information, third-party information from customers and suppliers and Company information. Our basic policy is to appropriately manage and protect such information by treating it as confidential, a philosophy that is stipulated in the TMEIC Group's codes of conduct. The policy is disseminated throughout TMEIC via new employee training, training for mid-career workers and e-learning for TMEIC executive officers and employees on personal information protection and information security.

TOSHIBA MITSUBISHI-ELECTRIC INDUSTRIAL SYSTEMS CORPORATION

www.tmeic.com