Historical Events Suggest a Vision of the Future

The Mitsubishi Group’s members, many affiliated and wholly owned subsidiary companies, strategically represent a diversified business matrix. Each member within the Group operates with autonomy, while displaying its own characteristics and sharing historical background and management philosophies. The common philosophies are the Three Principles.

The Three Principles are the management philosophies created by the fourth president, Koyata Iwasaki, and are considered to be the “Mitsubishi Group’s DNA,” inherited like an unbroken string of traditions. Backed by these philosophies, the members of the Group continue to look to the future, while actively and openly pursuing their respective operations.
The Three Principles of Mitsubishi’s Business Management Philosophy

“Shoki Hoko” = Corporate Responsibility to Society

Strive to enrich society, both materially and spiritually, while contributing towards the preservation of the global environment.

Commerce is a public undertaking and one requiring corporations to take responsibility for many of the interests affecting the countries in which they operate. This philosophy has been a cornerstone of Mitsubishi’s management policies from its beginnings. In order for a corporation to create sustainable prosperity, it is essential that it operates in a manner that is conducive to achieving this goal for the greater society.

“Shoji Komei” = Integrity and Fairness

Maintain principles of transparency and openness, conducting business with integrity and fairness.

President Koyata was known to have repeatedly cautioned Mitsubishi managers against focusing blindly on profits and losing sight of the Group’s adherence to a high standard of ethical behavior amid unprecedented competition, urging them to respond to competitors’ unscrupulous business practices with integrity and forbearance. He reminded them often of the importance of meeting the expectations of their customers and the public by exhibiting high ethical conduct in all their transactions. He was also well known for his observance of cultural differences around the world and the local customs of the communities in which Mitsubishi conducted business.

“Ritsugyo Boeki” = Global Understanding through Business

Expand business, based on an all-encompassing global perspective.

At the outbreak of the Pacific War, President Koyata made a bold statement about the friendship between international business partners now separated by war: “We count many British and Americans among our partners. They have undertaken many projects with us and so should peace come again, they will once again become good and faithful friends.”
Historical Events Suggest a Vision of the Future

The Four Presidents Who Built the Foundations of Mitsubishi

Establishing Mitsubishi in a Time of Tremendous Upheaval and Change

Yataro Iwasaki  Founder of Mitsubishi

A visionary and formidable entrepreneur

When we look back on history, there have always been new businesses arising during times of political and social change. The final days of the Tokugawa Shogunate and the Meiji Restoration that followed in 1868 was one such period, and it was Yataro Iwasaki who had the knowledge and the vision to see a new era coming, and with it the need for strong and organized international commerce.

Yataro Iwasaki was born in 1835 and as a young man worked for the Tosa Clan, one of the most powerful merchant clans of the time. Exporters of specialty goods such as camphor and dried bonito and importers of warships and weapons, the clan initially conducted its business operations in Nagasaki, the only sea port authorized to conduct trade between Japan and the outside world. Due to Yataro’s strong leadership and business savvy, the clan’s business operations were eventually moved to Osaka. When the Meiji government set out a policy of banning the system of clan-led businesses, powerful members of the Tosa clan, Shojiro Goto and Taisuke Itagaki, established Tsukumo Shokai, Mitsubishi’s predecessor, in 1870 to take over the clan’s shipping business.

In 1873, the new government enforced the abolition and in the turbulent period of change that followed, Yataro took over the management and formed Mitsubishi Shokai, making him one of the most successful and powerful businessmen in the new Japan.

The early years of Yataro Iwasaki

Very early in his life, Yataro understood the importance of a good education. Studying under a noted scholar of the time, Neiho Okamoto, the boy received an education only the very privileged of his day could have access to, all the more remarkable because of his roots in a small village in Tosa, Japan. Moving to Tokyo under the tutelage of Zosai Okunomiya, a prominent Confucian scholar of the time, Yataro was destined for greatness.

Mitsubishi’s transformation into a shipping company

In 1867, Yataro was appointed manager of the trading operations of the Tosa Clan’s business interests in Nagasaki. As Japan continued to open to Western trade, ports in Osaka, Kobe and Yokohama emerged as centers of commerce, replacing Nagasaki, which had long been Japan’s only officially designated open port. In 1869, Yataro was assigned to Osaka and rose to become manager of the clan’s Osaka operations. In 1870, Tsukumo Shokai was established with three steamships chartered from the Tosa Clan, a foundation upon which Mitsubishi was built.
Clan, and three years later changed its name to Mitsubishi Shokai. The following year its headquarters were moved to Tokyo and the company was renamed Mitsubishi Jokisen Kaisha.

Under an exclusive contract from the government, Mitsubishi provided the ships that carried Japanese troops to Taiwan in 1874, and later to Satsuma when the Southwestern Rebellion broke out in 1877. This business earned Mitsubishi the trust of Japan’s government and the financial rewards of this business relationship solidified the financial base for the company for the future. During this period, Mitsubishi owned 61 ships, or 73% of the gross tonnage of Japan’s steamship fleet.

This remarkably skillful business visionary further moved Mitsubishi into other businesses that included shipping documentation services, warehousing and financial services. In 1881, the company purchased an extremely unprofitable coal mine owned by Shojiro Goto, in Nagasaki, and with the introduction of new mining technology developed by Mitsubishi, the business became highly profitable. In 1884, Mitsubishi leased the Nagasaki Shipyard and later purchased the facility from the Japanese government, heralding an era of growth that made Mitsubishi one of the world’s leading shipbuilding companies.

The remarkable contributions of Yataro Iwasaki

Established in 1873, Mitsubishi Shokai originally conducted business primarily as a shipping and trading company, but Yataro skilfully moved the company in the direction of diversification, and into mining early in its history. With the purchase of the Yoshioka Mine, in Okayama, the company introduced modern technology that resulted in the discovery of previously hidden rich veins of copper, transforming the mine’s dwindling production to one of Japan’s highest producing copper mines.
A transition of power and leadership

“I am here to announce that I will take over leadership of Mitsubishi and do my best to expand our shipping business. I will strive to fulfill the long-cherished desire of my deceased brother with his same indomitable spirit.” With these words, Yanosuke Iwasaki, the younger brother of the founder Yataro Iwasaki, became Mitsubishi’s second president in 1885. Sixteen years junior to his brother, Yanosuke previously spent a brief period in the U.S., where he studied and learned about American culture and customs, an experience that would influence his actions throughout his lifetime. His international education, however, was cut short by his father’s untimely death in 1873 and the young Iwasaki returned to Japan. Later he stepped into his brother’s role as the administrative leader and became the driving force of a new and prosperous Japanese company.

A strategy for growth encompassing the concept of diversification

One of the achievements for which founder Yataro Iwasaki deserves credit is his efforts to diversify the company’s holdings early in its history. Yanosuke played a
major part in one of these expansions, namely the purchase of the Takashima Coal Mine, in 1881. The previous owner, Shojiro Goto, had acquired the mine from the Japanese government, and owing to poor management and a lack of expertise in the mining business, ran the company into disarray. Yanosuke Iwasaki persuaded Yataro to purchase the mine through his comprehensive assessment of its estimated reserves and business potential. Under new management, the mine later emerged as a profitable enterprise, as new mining technology was introduced.

Through his early experiences researching the mining business for his older brother, Yanosuke became Mitsubishi’s expert in mining, later acquiring mines for the company in Chikuho and Karatsu as well as in Nagasaki.

**Mitsubishi’s acquisition of property in Tokyo’s Marunouchi district**

During Japan’s Edo period, some clans had mansions in the Marunouchi district adjacent to Edo Castle. Following the Meiji Restoration, the area became government property and was transformed into military barracks, drill fields and other military facilities for the Imperial Palace Guards.

Later, the government attempted to raise money for the army’s planned construction of a brick barracks at Azabu by selling the land lots at Marunouchi—an area of about 413,000 m². When calling for bids among the predominant zaibatsu of the time, tender prices were found to be far smaller than anticipated by the government.

Therefore, in order for the government to rebuild its military installations, then Finance Minister Masayoshi Matsukata, facing insufficient government funding for the effort, asked Yanosuke to purchase the property. The young Iwasaki was inspired by his youthful memory of Manhattan, and considered that Japan would need an office district like that of London to support its modernization. With Mitsubishi’s purchase of Marunouchi, yet another era for the growing company had begun.

**Honoring duty and integrity for the future of Mitsubishi**

With the enactment of Japan’s commercial code in 1893, Mitsubishi was restructured and renamed Mitsubishi Goshi Kaisha. Fulfilling a promise to his older brother, Mitsubishi’s founder, Yanosuke then stepped down as president in favor of his nephew, Hisaya, turning over the reins of power and leadership to the next generation. He continued to be involved in the activities of the growing company in a supervisory role and continued to maintain an instrumental role in the management of the company. At this time in Mitsubishi’s history, Yanosuke was 42 years old, and Hisaya only 28.

Yanosuke went on to become Governor of the Bank of Japan three years after retiring from Mitsubishi, an appointment he received from then Prime Minister Masayoshi Matsukata. In 1896, as the Governor, he established the gold standard system and a collaborative framework with Yokohama Shokin Bank, Ltd., one of the predecessors of today’s The Bank of Tokyo-Mitsubishi UFJ, Ltd.

Yanosuke established the Seikado Bunko Library with books that he had received from his former teacher, scholar Yasutsugu Shigeno. Yanosuke was an avid collector of Oriental art and cultural artifacts during the Meiji Restoration, a time when things Oriental were being cast aside for anything Western. A true visionary, Yanosuke understood the value in preserving the heritage of his culture and country. During his lifetime, Koyata Iwasaki also continued to collect items for the library, continuing his father’s legacy.
Transforming Mitsubishi into a modern enterprise

In his early days, in 1886, Hisaya Iwasaki studied at the Wharton School of the University of Pennsylvania in the U.S. This was the period when great capitalists such as Rockefeller and Carnegie began to emerge in America to build businesses in oil, coal and steel. Hisaya experienced this big wave of American business firsthand.

His exposure to American education had a profound impact on the young Iwasaki’s life and upon his return to Japan, he built himself a Western-style house designed by a British architect, Josiah Conder, and surrounded it with gardens reminiscent of the American countryside. Today, the Tokyo Metropolitan Government owns the house and gardens, so the public may now enjoy this splendid representation of Western-style living.

First Step toward Modern Management

Hisaya Iwasaki The Third President of Mitsubishi

Transforming Mitsubishi into a leading shipbuilder

In 1895, Nippon Yusen built one of six passenger-cargo vessels (6,000-ton class) for a European line at the Nagasaki Shipyard. Until this time, only British companies had the shipbuilding capabilities to construct this size of commercial ship. The ship, Hitachi Maru, was the first of its size for the Nagasaki Shipyard, and the experience gained from the construction of this vessel set the stage for a growing number of orders for larger vessels, including an order for the 13,000-ton class luxury liner, TENYO MARU, and many subsequent orders for large-scale battleships.
Creating a modern corporate management system

In 1908, Hisaya introduced into Mitsubishi a management system very much like today’s system of operational divisions. The aim of this change was to give each division responsibilities and cost consciousness in order to further expand the company’s businesses. Mitsubishi Goshi Kaisha consisted of the divisions of banking, shipbuilding, administration, mining, sales, and real estate, to which direct management authority was then transferred. This move was a decisive and strategic gain for the growing Mitsubishi, increasing both efficiency and profitability as a corporate enterprise.

The introduction of the division system was the first step in Mitsubishi’s transformation from a one-man rule company to a truly modern corporate structure, equipped to meet the challenges of a rapidly changing and increasingly international business environment.

Major contributions even in retirement

In 1916, while Japan prospered during the war boom of WWI, Hisaya stepped down as president and entrusted the reigns of leadership to his cousin Koyata Iwasaki. At the time Hisaya was 50 years old, and he felt he could confidently entrust the business to his successor at such a time of robust economic growth. It was a truly selfless decision, and having passed over the reins of power, Hisaya refrained from interfering in the business of Mitsubishi Goshi Kaisha.

Following his retirement, Hisaya Iwasaki worked to contribute to society, while also being involved in agriculture and cattle raising at Koiwai Farm. In 1924, he established The Toyo Bunko Foundation, which has become one of the world’s leading centers for Asian studies. Currently, the facility houses about 950 thousand documents and many artifacts for public viewing.
A voice of reason during a time of despair

On October 20, 1945, only two months following Japan’s surrender to the Allied Forces, Japan was dealt a further economic hardship when the Allied Command ordered the disbanding of all zaibatsu, the nation’s industrial and financial business conglomerates. The order was given because Allied Command considered the military and the zaibatsu to have been ultimately responsible for driving Japan into the war, and sought to break up economic forces that exercised totalitarian monopolistic power. The hard work of many went unrecognized at the time of the dissolution of these zaibatsu corporations, and among them, the work of Yataro Iwasaki and the Mitsubishi Group. Koyata Iwasaki, the founder’s nephew and fourth president of Mitsubishi, was an outspoken advocate, asserting publicly that Mitsubishi was a friend to many business partners around the world and that it had never engaged in dishonorable business practices.

A champion of internationalism and goodwill in a time of discord

Koyata Iwasaki was the most international spirited Japanese businessperson of his era, having completed his formal education at the famed University of Cambridge in England. Despite the spirit of internationalism and social justice he engendered, at the outbreak of hostilities following Japan’s attack on Pearl Harbor, Koyata Iwasaki stated at a speech given to the assembled top executives of each Mitsubishi Group company: “Now our nation has come to a decision. And although my personal ideas regarding diplomacy depart from those of the nation, we are all now called upon to follow the order of our Emperor, to be united and to endeavor with all our strength for the nation.” A small voice of reason in a time of turmoil and growing call to arms, Koyata urged the nation to look beyond the current state of affairs, and envision a time when internationalism and peace would prevail. A forward thinker, Koyata Iwasaki spoke of the day when people everywhere could work towards the global good. He was a man dedicated to the ideas of international understanding and 

Another Visionary Businessperson Leads Mitsubishi

Koyata Iwasaki The Fourth President of Mitsubishi
the globalization of markets, long before the concepts and phrases had entered our modern lexicon. His idea of ‘corporate responsibility to society’ guiding individual and corporate actions, known in Japanese as shoki hoko, would define one of Mitsubishi’s guiding principles for decades to come. It is important to remember, that during the turbulent years of WWII and in its aftermath, the Mitsubishi Group continued its responsible stewardship of its associated British and American business interests in Japan and the region, in this spirit of Koyata’s dedication to internationalism.

A proponent of cooperation and accountability in a time of transition

Koyata’s strong conviction that integrity and fairness were the foundation of all business remains a cornerstone of Mitsubishi’s management philosophy today. Amidst the economic depression of the early 20th century, Mitsubishi’s operations were guided by a set of core principles. With the nation hard hit by the difficult economic times, Koyata advocated responsible action and assistance to manufacturers, producers and the public Mitsubishi served. Placing an unwavering commitment to quality and fair business practices, Mitsubishi survived and prospered and in many instances took a leadership role in moving the industries in which it conducted business to profitability and sustainable prosperity. In 1934, his ideas became officially accepted as Mitsubishi’s guiding principles, and these principles would lead the company to greatness in the 20th century and beyond.

Development of the Marunouchi district

Tokyo’s Marunouchi district, which had developed as a focal area for the army of the new government following the Meiji Restoration, gradually transformed itself into the nation’s nerve center for business activities. In 1894, the first modern office building was constructed in the British red-brick architectural style and in 1914, the country’s landmark Tokyo Station was opened as the transportation hub of the nation.

The early 1920s, saw construction of American-style office buildings for Japan’s growing business center. These were large and could be built relatively quickly. It was at this time that Koyata made the decision to build Mitsubishi’s new building. The former Marunouchi Building was a landmark structure, which opened on February 20, 1923, after being built in record time using new construction technology by a leading New York construction firm. Less than a year after its completion, the Marunouchi Building survived the Great Kanto Earthquake of 1923, which devastated most of the Tokyo skyline. The famous icon facing Tokyo Station was demolished in 1999 as part of a massive redevelopment project for the district. In 2002, a new Marunouchi Building was completed. It has become a familiar landmark in the Marunouchi area.
The Regeneration of the Mitsubishi Group

Rebuilding Japan—a Transitional Process for Mitsubishi

Reestablishing a corporate identity

Following the end of WWII, the Allied Forces in Japan demanded the dissolution of the zaibatsu that had held so much power in the prewar period ending nearly 70 years of Mitsubishi’s leadership by four generations of the Iwasaki family. In September 1946 the company disbanded its headquarters, and its network of affiliates and subsidiaries were all re-launched as independent companies. Moreover, GHQ orders strictly prohibited the use of the Mitsubishi trade name or logo.

The San Francisco Peace Accord in 1952 brought about a repeal of the ban on using zaibatsu trade names and logos. With this change, former Mitsubishi Group companies reclaimed the Mitsubishi name and in 1954, the once-divided Mitsubishi Corporation conducted a series of mergers leading to an overall merger into a single entity.

A new era in weather forecasting

The typhoon Isewan struck the Kii Peninsula on September 26, 1959, killing more than 5,000 and injuring about 40,000 Japanese citizens, and becoming Japan’s most destructive typhoon in more than a century. In the wake of this natural disaster, the Japanese government moved to build weather warning facilities, establishing a weather observatory on the summit of Mt. Fuji and ushering in a new era of meteorological observation systems throughout the country. Mitsubishi Electric Corporation received the order to build the facility.

On August 15, 1964, construction of the radar towers atop Mt. Fuji was completed, establishing Japan’s first early-warning weather system. The range of the new facility was 800 kilometers. Over the following 35 years, the Mt. Fuji radar system continued to play a key role in Japan’s early-warning weather systems.

In March 2000, the Mt. Fuji radar system was recognized as an important milestone by the Institute of Electrical and Electronics Engineers, Inc. (IEEE) of the U.S., as a noteworthy example in the history of electrical engineering for weather radar operation.
The Tokyo Olympics and the regeneration of the Mitsubishi Group

In 1964, Mitsubishi Heavy Industries, Ltd. (MHI) completed the reunification of its former companies. In September of the same year, the Mitsubishi Public Affairs Committee was established with the mission of increasing the Mitsubishi Group’s involvement in community activities and its contribution to society overall. The move was also designed to increase public recognition for the Mitsubishi brand and to enhance communication among the growing numbers of companies comprising the Mitsubishi Group. In October of the same year, the opening of the Tokyo Olympics realized Japan’s long-held desire and allowed the country to demonstrate to the whole world that it had truly recovered.

A new era in corporate responsibility and leadership

During the 1960s, enterprises closely aligned with Mitsubishi began to strengthen their mutual links. At the same time, Mitsubishi took a positive approach to foreign capital. For example, Mitsubishi Petrochemical Co., Ltd. (currently Mitsubishi Chemical Holdings Corporation) was established in 1956 as a joint venture with Royal Dutch Shell Group; Mitsubishi Reynolds Aluminum Co., Ltd. (currently Mitsubishi Aluminum Co., Ltd.) and Mitsubishi Precision Co., Ltd. were formed in 1962 as joint ventures with Reynolds International, Inc. and General Precision Inc., respectively.

The rapid growth of the Japanese economy during the 1950s and 60s was due in no small part to the astounding growth in the manufacture of consumer products and the expansion of consumer markets. Following close behind was growth in credit card businesses, of which Mitsubishi was a key player, organizing Diamond Credit Co., Ltd. (currently Mitsubishi UFJ NICOS Co., Ltd.) in 1967.

The YS-11, an airliner built by a consortium that included MHI

Radar facilities constructed on Mt. Fuji in 1964 ©JIJI PRESS

Historical Events Suggest a Vision of the Future
The Regeneration of the Mitsubishi Group
In 1970, the Mitsubishi Group commemorated its centennial year in business, and established the Mitsubishi Foundation in 1969. The Foundation is an active supporter of a wide range of academic research and social welfare programs. In 1970, the Group formed Mitsubishi Research Institute.

During the occupation of Japan by the Allied Forces following the end of WWII, the zaibatsu were disbanded and their trade names abolished. In the decades of reconstruction following this difficult period in Japanese modern history, Mitsubishi was able to maintain a corporate identity despite its organizational dissolution through the nurturing of its original management principles, embodied in the themes of Corporate Responsibility to Society, Integrity and Fairness, and Global Understanding through Business.

To mark its centennial anniversary, the Group sponsored the Mitsubishi Pavilion at the Japan World Exposition in Osaka in 1970. In subsequent years, Mitsubishi has continued to maintain a high profile in international business and has also participated in other international events, including the ‘75 Okinawa International Ocean Expo, the Kobe Portopia ’81 Exposition, the ’85 International Exhibition in Tsukuba, the ’90 International Garden and Greenery Exposition in Osaka, and the 2005 World Exposition in Aichi. Its participation in these international gatherings is a reflection of the Group’s determination to contribute to the promotion of international understanding and a better world for all people.

‘Slow’ but ‘Steady’ are trademark characteristics of Mitsubishi’s long-term approach to business growth and contribution to society

Throughout the years of Japan’s ‘bubble economy,’ primarily during the 1980s and early 1990s, the Mitsubishi Group continued to serve customers and manage assets following a careful and determined approach to business. The strength exhibited by Mitsubishi during the years of economic turmoil following this period, reflects its adherence to the basic corporate philosophy and management principles that have guided Mitsubishi’s business affairs for more than a century.

This steadfast approach to business was woven into Mitsubishi’s DNA by President Koyata in the years immediately following WWI, when Japan’s economy had succumbed to a speculative boom fueled by post-war recovery demand. The president sent out a memo urging managers to eschew harmful, empty business practices based on easy speculation and short-term profit, and to foster instead a culture based on a slow but steady approach to management.

Over half a century later during Japan’s bubble economy, Mitsubishi’s core philosophy protected the company from the folly of over-investment in the heat of the boom, allowing the Group to emerge from the bubble’s collapse relatively unscathed with only a few bad debts on its books.

The birth of a world-class business district

Tokyo’s Marunouchi district has undergone development to become Japan’s premier business center, and Mitsubishi Estate has been at the center of redevelopment initiatives to transform Otemachi, Marunouchi and Yurakucho, the area
between Tokyo Station and the Imperial Palace, into a diverse district that serves as the face of Japan.

Since the announcement to rebuild the Marunouchi Building in 1995, the vicinity of Tokyo Station has been subject to major redevelopment. The successive completion of reconstructed buildings, such as the Marunouchi Building in 2002, the Industry Club of Japan, Mitsubishi UFJ Trust and Banking Building in 2003, Marunouchi MY PLAZA and Marunouchi Oazo in 2004, the Tokyo Building in 2005, “Tokyo Tokiwabashi” project, which includes the goal of completing construction of Japan’s tallest office building at approximately 390 meters (1,279 feet) by 2027.

**Moving beyond conventional manufacturing**

The Mitsubishi Regional Jet (MRJ) made its first flight as Japan’s first domestically developed passenger jet in November 2015. The MRJ business is promoted by Mitsubishi Heavy Industries, Ltd. as a new business venture that harnesses the technologies accumulated through its aerospace operations. The commercial aircraft business is expected to become a potential new pillar for the domestic industry going forward. The MRJ is expected to drive medium- to long-term growth for the Japanese industry and to go beyond the rubric of single company manufacturing. Moreover, by forming new networks that connect different regions, the MRJ is expected to serve as an important means of transportation helping to revitalize regions.

**The Mitsubishi Group embarks on a new journey to the frontiers of space**

In March 2008, Japan’s first manned experiment space station, the Japanese Experiment Module “Kibo,” was connected to the International Space Station (ISS) and in August that year the first experiment was carried out, thereby beginning a new era of the full utilization of ISS. The H-II Transfer Vehicle “KOUNOTORI” (HTV), an unmanned space transporter, was developed in Japan to transport supplies to the station.

KOUNOTORI is an unmanned cargo transporter spacecraft designed to transport up to six tons of food, experiment devices and other supplies to the International Space Station. Under the leadership of the Japan Aerospace Exploration Agency (JAXA), Mitsubishi Heavy Industries, Mitsubishi Electric Corporation and other companies continue to play a central role in manufacturing the transporter.

Japanese technological expertise has been highly applauded with respect to the transporter. The KOUNOTORI is the world’s only cargo transporter spacecraft that can deliver to the ISS large freight and external space-station equipment that is too large to pass through the docking port where personnel can enter. This is made possible by the transporter’s large hatch and the unpressurized Logistics Carrier.

The Mitsubishi Group’s businesses originated with marine transportation. Through its pursuit of “Global Understanding through Business” (“Ritsugyo Boeki”) one of the Group’s Three Principles, the Mitsubishi Group is now moving beyond the confines of the Earth to the frontiers of space.
Mitsubishi Group Initiatives

Aiming for a Sustainable Society

The Mitsubishi Group's basic management philosophy is known as the Three Principles (see page 3). One of these is Shoki Hoko or “Corporate Responsibility to Society,” meaning that as it conducts its business, the company should strive to enrich society, both materially and spiritually, while contributing to the preservation of the global environment.

Countries around the world are facing numerous social and environmental issues. The Mitsubishi Group is striving to resolve them in line with this philosophy. This section introduces some of these initiatives.

Realizing a recycling-oriented society

Our modern lifestyle has involved continual mass production, mass consumption, and mass disposal. Consequently, we now face issues such as depletion of natural resources and environmental destruction. To resolve these issues, we need to build a recycling-oriented society that makes efficient use of finite resources and recovers them for reuse. The Mitsubishi Group is working to build a recycling-oriented society, with initiatives that include leveraging cutting-edge technologies, creating new environmentally considerate materials and producing reusable energy.

Global warming countermeasures and renewable energy

Global warming is already having serious impacts on the natural environment and human life. This issue therefore demands urgent action.

Mitsubishi Heavy Industries, Ltd. is broadly engaged in resolving energy related issues. Current initiatives include efforts to increase the efficiency of conventional power stations and reduce their CO\textsubscript{2} emissions through state-of-the-art gas turbine combined cycle (GTCC) power generation, centered on the world's most efficient gas turbines. In efforts to introduce renewable energy, Mitsubishi Heavy Industries is undertaking research and development in fields such as wind power generation, hydropower generation, and biomass power generation. Wind power generation is expected to provide greater electric power due to the powerful wind force that can be harnessed, especially in offshore installations. MHI Vestas Offshore Wind A/S, established as a joint venture with a leading Danish wind turbine manufacturer, has installed the world's largest turbines by output capacity (8 MW) at an offshore wind farm and is currently verifying a 9.5 MW wind turbine. The company has been operating mainly in Europe and is continuing to expand sales in U.S. and Asian markets as a world-leading offshore wind turbine OEM.

Mitsubishi Corporation aims to achieve a renewable energy composition of over 20% of total attributable power generation by 2030. Mitsubishi Corporation takes part in four wind generation businesses using MHI Vestas wind turbine generators in the Netherlands, Belgium, and the U.K. The Netherlands operations which started in 2015, combined with the three other projects pending completion, will collectively be capable of generating energy for over 2.3 million households. Mitsubishi Corporation pursues the realization of sustainable societies through its diverse businesses in a wide range of territories and regions.

In geothermal power generation, Mitsubishi Materials Corporation's initiatives deserve attention. The company is engaged in power generation at the Onuma Geothermal Power Plant in Akita Prefecture and in a joint steam supply business with Mitsubishi Gas Chemical Company, Inc. at the Sumikawa Geothermal Power Plant. In 2010, Mitsubishi Materials established Yuzawa Geothermal Power Corporation in partnership with Electric Power Development Co., Ltd. and Mitsubishi Gas Chemical, and is now advancing construction of the Wasabizawa Geothermal Power Plant with a view to starting operations in

V164-8.0 MW wind turbine

Onuma Geothermal Power Plant

In solar power generation systems, the Group has started projects by LM Sun Power Co., Ltd., which was jointly established by Mitsubishi Materials and Mitsubishi UFJ Lease & Finance Company Limited.

AGC Inc. contributes to more comfortable, energy-saving office buildings and stores through the sales of ATTOCH®, a low-E glass for on-site retrofitting installation that uses SunJoule®, which integrates building glass modules with solar cells to enable power generation with assured lighting and durability.

Mitsubishi Research Institute, Inc. (MRI) established Takacho Yasudago Mega Solar Hatsuuden LLC in Takacho, Hyogo Prefecture through joint investment with other companies, and started operating the approximately 14.5 MW plant in November 2016. In addition, MRI has established Mega Solar Business Fund in ei-cho, Kagoshima Prefecture in cooperation with Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. and is engaged in business as an asset manager. Through these projects of spreading renewable energy, MRI contributes to securing long-term stable energy in Japan and controlling global warming.

Moreover, electric vehicles and fuel cell vehicles are becoming a familiar part of our everyday lives. Mitsubishi Fuso Truck & Bus Corporation has advanced the industry’s most fuel-efficient clean diesel vehicles, and launched a fully electric light-duty truck, the eCanter, in the second half of 2017 for urban delivery companies in Europe, the U.S. and Japan. JXTG Nippon Oil & Energy Corporation is currently operating 40 hydrogen refueling stations mainly in four major areas in Japan.

AGC’s next-generation refrigerant AMOLEA® 1224yd is a part of its AMOLEA® brand of next-generation refrigerants and solvents. The new refrigerant is mainly used in centrifugal chillers, binary cycle generators, and waste heat recovery heat pumps, and seeks to dramatically reduce global warming potential (GWP) while retaining the same level of performance as a refrigerant.

Recycling technology
Recently, the expression “urban mines” has entered the public lexicon. Scrap, such as household appliances, PCs and smartphones, contains a wealth of precious metals that are expected to rival mineral resources in resource-rich countries. Scrap that contains these precious metals has come to be known as “urban mines.”

Mitsubishi Materials is helping to recover precious metals from urban mines. The second E-scrap center at the Naoshima Smelting and Refinery in Kagawa Prefecture, completed in April 2016, receives electronic circuit board scrap, also known as E-scrap, and recovers precious metals such as gold and silver. MM Metal Recycling B.V. was also newly established in the Netherlands to facilitate efficient delivery of E-scrap overseas. The Group’s acceptance and processing capacity, including at the Onahama Smelting and Refinery amounts to about 160,000 tons annually, and remains the largest in the world.

Disposal of plastic waste is also a serious environmental issue. Lightweight, able to be processed into any shape or color and cheap to produce, plastic is an essential part of our comfortable daily lives; however, discarded used plastic creates a hefty burden at the waste processing stage. One solution that is drawing attention is biodegradable plastics. These are broken down naturally into water and CO2 by microorganisms in the natural world, making them environmentally friendly.

Mitsubishi Chemical Holdings Corporation manufactures and sells biodegradable plastic, while Mitsubishi Chemical Agri Dream Co., Ltd. of the Mitsubishi Chemical Group manufactures and sells CAELUCCI™, agricultural mulch film, which is made using Mitsubishi Chemical’s biodegradable plastic in Japan. Since the film does not need to be peeled off or picked up after use, it helps agricultural producers save time in their operations as well as reduce their total costs. In this way, the product benefits both producers and the environment.

For a safe and comfortable society
Natural disasters such as earthquakes, tsunamis, and typhoons occur frequently throughout the world, causing enormous damage. Mitigating the impact of disasters is a real and pressing issue for all of us. The
Mitsubishi Group will support damage mitigation initiatives by leveraging the respective strengths of its businesses. High-quality atmospheric data and other information can help in avoiding and mitigating damage from natural disasters. Himawari-8/9 geostationary meteorological satellites manufactured by Mitsubishi Electric have been used in Japan’s first satellite operation by a private finance initiative, led by Mitsubishi UFJ Lease & Finance. These satellites help to achieve even higher precision in monitoring and measurement of typhoons, heavy rainfall, weather changes, and so forth in the East Asia and Western Pacific regions to enable more accurate forecasting.

After a disaster occurs, the processes of searching for people needing rescue and recovery work are subject to the risk of a secondary disaster. As part of its efforts to help ensure safe operations in disaster zones, Mitsubishi Heavy Industries is taking part in the tough robotics challenge presented by the cabinet-sponsored advancement program (ImPACT) by cooperating with the development of a robust platform called WAREC-1, which is capable of quadrupedal, bipedal, and stomach locomotion.

In addition, securing lifelines, especially water, is vital in a disaster from the perspective of reducing damage. Mitsubishi Chemical Group company Wellthy Corporation developed a groundwater membrane filtration system that enables dual-source water supply in combination with public supply. In 2016, the systems continued operating in areas where water supplies were disrupted in the aftermath of the Kumamoto Earthquakes, helping the management to maintain hospital functions and supply water to local residents.

The ability of EVs (Electric Vehicles) and PHEVs (Plug-in Hybrid Electric Vehicles) to serve as power suppliers, which Mitsubishi Motors has been focusing on developing, is now receiving attention as they could be used as emergency electric power supplies such as in cases of natural disasters.

When the Kumamoto Earthquakes hit Mashiki Town and left significant damage, the town hall’s emergency electricity generator did not function because of an untimely technical problem. A light of hope illuminated the dark when an Outlander PHEV owned by a local supplied power for the floodlights, light from which allowed the town to set up its headquarters for emergency disaster control.

EVs (Electric Vehicles) and PHEVs (Plug-in Hybrid Vehicles), which Mitsubishi Motors Corporation focuses on development, are receiving increasing attention globally. In the Philippines, Indonesia and Vietnam, Mitsubishi Motors has signed a memorandum of understanding on joint research on reduction of environmental burdens utilizing electrification technology with their governments and built a close cooperative structure with the governments towards expanding the spread of electric-powered vehicles in the ASEAN region. And, in Japan, Mitsubishi Motors has worked on expanding the potential of EVs and PHEVs. As of December 2018, we have established 56 Dendo Drive Stations, unique next-generation dealerships exhibiting electricity-related devices such as solar power systems and V2H, a system which allows EVs and PHEVs to supply accumulated electricity to homes.

When a major disaster occurs, the major issues for companies to address are how to minimize damage to business assets, how to continue core business operations, and how to recover from the damage quickly.

Mitsubishi Logistics Corporation, a warehousing company, also develops and leases office buildings. It has completed construction of the Nihonbashi Dia Building in Tokyo’s Nihonbashi district. As a disaster-resistant, environmentally considerate office building, the Nihonbashi Dia Building is designed with a priority on safety, security and business continuity with disaster countermeasures in place to cope with earthquakes, power cuts, flooding and so forth. The building received the highest ranking, S, under the Comprehensive Assessment System for Built Environment Efficiency. With these and other environmental considerations, the building contributes to energy savings for its tenants.

**Technological innovation for comfortable living**

Technological innovation brings a range of benefits for society. The Mitsubishi Group is also leveraging the latest technologies to help create comfortable living in many domains.

MUFG Bank, Ltd. is investigating the issuance of MUFG Coin digital currency not only for remittance or payment, but also as part of a new financial infrastructure. The bank has been accumulating knowledge to apply towards practical use of digital currency by implementing internal trial runs, such as verification testing of QR code payments at corporate
convenience stores and cafes, and remittance and bill cost-splitting between individuals. Moreover, Japan’s first hackathon geared towards utilizing digital currency functions in financial institutions was held in March 2018; hackathons are competitions to foster ideas for new computer programs and services, and this event generated ideas for new financial services. Through innovative events such as hackathons and cooperation with outside companies, the MUFG Bank seeks to provide new value beyond what a bank can offer, as well as contribute to the resolution of various social issues.

Mitsubishi Heavy Industries Transportation Equipment Engineering & Service Co., Ltd., a Mitsubishi Heavy Industries Group company, has developed an improved Platform Screen Door (PSD) which accommodate different number of rail vehicle doors. This Platform Screen Door is installed at railway stations, and can accommodate passengers getting on and off in the safest way for any type of train even though trains have different numbers of doors and positions. Platform Screen Door are a valuable means of ensuring passengers’ safety. We are confident that the new PSD will advance contribute to barrier free accessibility in passengers’ transportation.

**Activities rooted in the local community**

Local communities today are facing issues such as depopulation, aging, and the decay of industries and communities outside of urban centers. The Mitsubishi Group is helping to develop local communities through various initiatives.

Kirin Holdings Group company Mercian Corporation makes direct contracts with domestic growers who harvest the grapes used to make Château Mercian wine. By providing guidance on cultivation management and other aspects, Mercian has ensured a stable supply of high-quality grapes and supported its contract growers over the long term.

Meanwhile, in expanding the vineyards that are under corporate management, Mercian has brought beneficial impacts such as reducing idle wasteland, thereby helping to revitalize Japan’s agriculture industry and communities.

Mercian has also been helping to address regional issues. For example, the company has been cooperating with personnel development for the wine industry through an industry-academia partnership in Shiojiri, Nagano Prefecture since 2008.

Mitsubishi Paper Mills Limited works to preserve biodiversity and develop local communities through management of its forests in Japan. At company forests in Aomori, Iwate, and Fukushima prefectures, Mitsubishi Paper Mills has acquired the world’s most highly trusted FSC® certification and conducts forest management with a view to protecting biodiversity and other aspects. Moreover, in Fukushima Prefecture (Nishigo), the company has used its forest to establish an environmental education program called the Ecosystem Academy. The program offers experiential learning sessions with the theme of “Benefits from the Forests,” mainly for local elementary school students. Through these efforts, Mitsubishi Paper Mills is helping to raise children of the next generation.

**Nippon Yusen Kabushiki Kaisha (NYK Line)** has established a maritime academy in the Philippines in 2007. Since the academy opened, NYK Line has set up its own scholarship system to enable students to attend who would otherwise find it difficult due to their home environment. The academy aims to develop high-quality Filipino seafarers.

Meiji Yasuda Life Insurance Company signed a title partnership agreement with the JAPAN PROFESSIONAL FOOTBALL LEAGUE (J.League) in January 2005 as part of its social contribution activities. By supporting the J.League and J-clubs, the company makes a greater contribution to energizing communities, strengthens relationships with individual clubs and promotes providing children with a wholesome education, such as holding football clinics for elementary school students.

Mitsubishi Corporation has been working to aid the recovery of areas affected by the Great East Japan Earthquake ever since it occurred, by dispatching employee volunteers and other efforts. Through these recovery assistance efforts, Mitsubishi Corporation came to learn that people affected by the disaster desire to work, earn, and live independently, and founded the Mitsubishi Corporation Disaster Relief Foundation in 2012. The foundation works to support entrepreneurs and employment creation by the provision of loans, and has thus far created employment for around 2,000 people through 50 projects in the three prefectures of Iwate, Miyagi, and Fukushima.

The Mitsubishi Group will continue its initiatives to realize a sustainable society by fully leveraging its long years of experience, its continually advancing technologies, and the diversity of its Group companies.