

**Stepping Stones to Tomorrow: 125 Years of Innovation at
Kawasaki Heavy Industries, Ltd.**



Introduction

On October 15, 2021, Kawasaki Heavy Industries celebrated its 125th anniversary. To commemorate this occasion, we published “Stepping Stones to Tomorrow: 125 Years of Innovation at Kawasaki Heavy Industries, Ltd.”

The official histories of our company that had been published previously include the "40 Year History of Kawasaki Dockyard" published in 1936, the "60 Year History of Kawasaki Heavy Industries, Ltd." published in 1959, and "Shaping Dreams: 100 Year History of Kawasaki Heavy Industries, Ltd." published in 1997. This 125 year history mainly describes changes in the company as well as its products and technologies that have occurred since the 100 year history was published.

Over the course of the 125 years since its foundation in 1896, the Kawasaki Group has cultivated advanced technology and knowledge through manufacturing in a wide range of fields encompassing land, sea and air. In every era, we have harnessed the power of technology to provide state-of-the-art products and services designed to meet the diverse needs of people around the world.

The world is now going through a period of dramatic change. It's against this shifting backdrop that our customers have placed their trust in us. We must fuel their hopes with a rapid response that delivers innovative added value and enables us to accurately assess the hurdles facing the world in this new era as we move forward to overcome them. That's where "Trustworthy Solutions for the Future," our corporate vision for 2030 will serve as a guiding light. It's about “making available—in a timely manner—innovative solutions which accommodate

an ever-changing society in order to create a hopeful future” as well as “acting outside of organizational and divisional boundaries and taking on challenges to expand the horizons of our potential for further growth.” Dig down deep to the philosophical roots planted by our founder, Shozo Kawasaki, and you'll find that the mission of “contributing to the nation—to society—through expertise” and solving social issues through industrial innovation has been part of our DNA for generations. Embracing this hereditary past, we will continue to meet the future head on as we work together with our customers to quickly find the solutions they need, deliver new products and services to the world, improve our enterprise value, and bring "Trustworthy Solutions for the Future."

Finally, I would like to express my deep gratitude to all of our stakeholders for their enlightening guidance and kindness over the years. I hope that this book will broaden your insights into the Kawasaki Group's activities, and look forward to your continued support and guidance in the future.

June 2022

Kawasaki Heavy Industries, Ltd.

President and Chief Executive Officer

Yasuhiko Hashimoto

Part **1**: Our First Century

1896 to 1996

Visual History of 100 years

A Driving Force of History

Prologue

The Dawn

Before 1895

Meiji 28

The Formative Years: The Small Business Era

Early on in the Meiji period (1868–1912), Japan was just beginning to open its eyes to the wider world and began modernizing its industries. It was then that Shozo Kawasaki, a business entrepreneur engaged in trading and much more, established the Kawasaki Tsukiji Shipyard at 9 Minami-iida-cho, Tsukiji, Tokyo in April 1878 with the aim of building Western style ships. This was the beginning of Kawasaki Heavy Industries. Three years later, he opened the Kawasaki Hyogo Shipyard in Higashidemachi, Hyogo Prefecture, establishing shipbuilding hubs in both eastern and western Japan.

Then in 1887 the national government decided to sell the publicly owned Hyogo Shipyard to the private sector. Shozo was chosen from among a host of applicants for not only to his management skills, but also for his passion for shipbuilding, commitment to country and community, undying determination, excellent insights, and sincerity. Kawasaki Dockyard, the new company that was established after transferring the main functions of the Kawasaki Tsukiji Shipyard and Kawasaki Hyogo Shipyard, boasted 618 employees, three building berths, two slipways, and five boilers with a combined total output of 111 horsepower.

When the Sino-Japanese War broke out in 1894, orders flooded into shipyards, mainly for ship repair work, and Japan's shipbuilding industry boomed. From this point on, shipowners were oriented toward mass transportation by large vessels. Kawasaki Dockyard was also busy, mainly due to demand from the Navy.

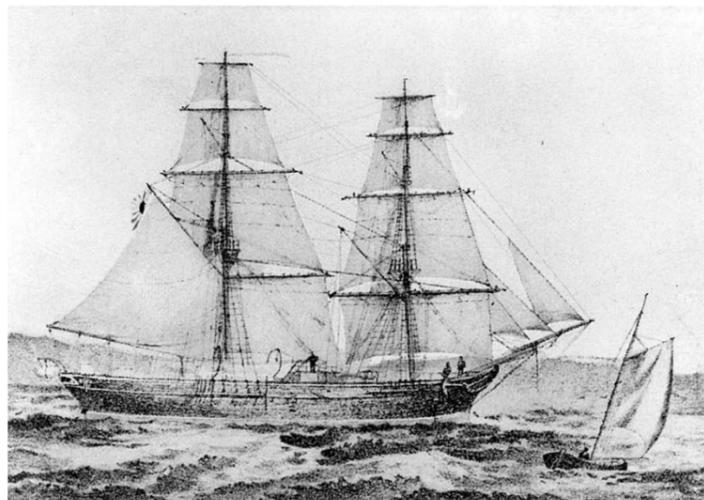
Shozo realized that keeping pace with demand called for a major expansion of facilities and planned to reorganize the company into a joint-stock corporation. He also decided to retire and look for a successor to whom he could entrust with safeguarding the livelihoods of his more than 1,800 employees.



Shozo Kawasaki (1837–1912) (far left), the company founder who pioneered Japan's Western-style shipbuilding industry.



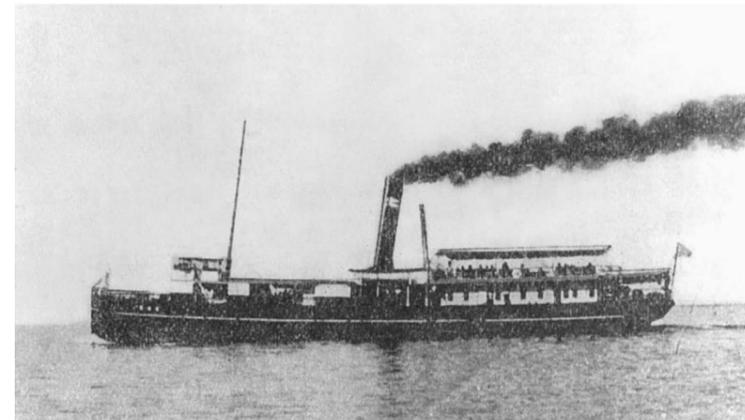
Kawasaki Tsukiji Shipyard advertisement in 1878 announcing the company's founding



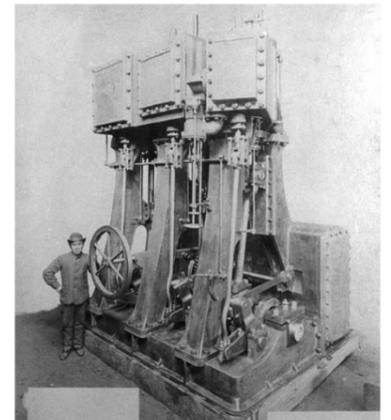
Training ship, Tatyama, built in 1880 and christened the Daiichi Kaisomaru at Kawasaki Tsukiji Shipyard



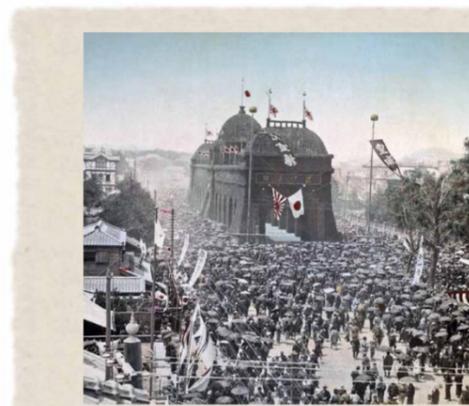
Kawasaki Dockyard in 1891 with a ship to the far left on a slipway



Minatogawamaru cargo-passenger ship, the second ship built by Kawasaki Dockyard and delivered to O.S.K. Lines in 1887



Steam engine for the Tatsugawamaru cargo-passenger ship, manufactured in 1894 (3 cylinders, 65 hp)



Hibiya Triumphal Arch built to celebrate victory in the Sino-Japanese War

Japan Wins the Sino-Japanese War, Joins World Powers

In July 1894, Japan and China went to war over the control of Korea. Japan declared war on August 1, won the Battle of Pyongyang and the Battle of the Yellow Sea in September, and conquered the Liaodong Peninsula in March of the following year. Through the mediation of the United States, the Sino-Japanese Peace Conference opened in Shimonoseki on March 20, 1895. Although a peace treaty was signed with terms that included the recognition of Korea as an independent country, the cession of the Liaodong Peninsula, Taiwan and Penghu Island to Japan, and the payment of 200 million Kuping taels (about 300 million yen) as compensation for military expenses, Japan renounced its possession of the Liaodong Peninsula due to the "triple intervention" of Russia, France, and Germany. With its victory in the Sino-Japanese War, Japan became one of "the great powers."

Chapter 1

The Beginning

1896–1913

Meiji 29

Taisho 2

Establishment of the Kawasaki Dockyard and Business Foundation

On October 15, 1896, Shozo Kawasaki established Kawasaki Dockyard Co., Ltd. He appointed Kojiro Matsukata, the third son of Prime Minister Masayoshi Matsukata, as the company's first president. Shozo, who was the largest shareholder, took the position of adviser at Kojiro's request, but did not interfere in the management of the company.

In November 1902, after 6 years of difficult construction work, a 130-meter-long, 15.7-meter-wide, and 5.5-meter-deep dry dock with a maximum capacity of 6,000 tons was completed. At the time the company was actively engaged in constructing naval vessels, such as minelayers and torpedo boats. Then, with the assistance of guest engineers from the U.S., it delivered the first submarine made in Japan to the Imperial Navy in April 1906.

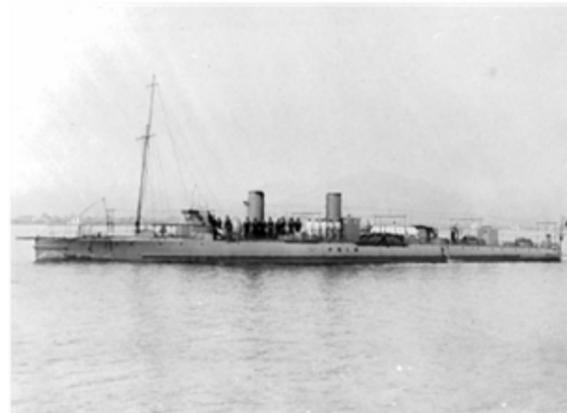
During this same period, the company saw a steadily increasing flow of orders for general merchant ships coming in. In 1900, the company launched a series of 1,000 to 2,000 gross ton ships, including O.S.K. Lines' Dainimaru, which was the first Kawasaki built ship to be classified by the Lloyd's Register of Shipping in the U.K. On top of that, the company added four building berths to significantly boost its construction capacity.

Seeing railway rolling stock manufacturing as a promising new business, the company built a rolling stock factory along the Hyogo Canal. Once the railway manufacturing plant, machinery, and lumber mill were completed, the company started making passenger and freight cars. It also launched a locomotive factory in 1908.

In the wake of its victory in the Russo-Japanese War (1904–1905), the Japanese government geared up for the production of large vessels made in Japan. In 1908, Kawasaki Dockyard built the dispatch boat, Yodo, becoming the first civilian shipyard to produce a warship with a displacement exceeding 1,000 tons. This was followed by the launch of the Hirato second-class battlecruiser and the Haruna battlecruiser.



NYK Line's Mikawamaru, the first ship to enter the dry dock (1902)



Hashitaka, a first class torpedo boat delivered to the Ministry of the Navy in 1904



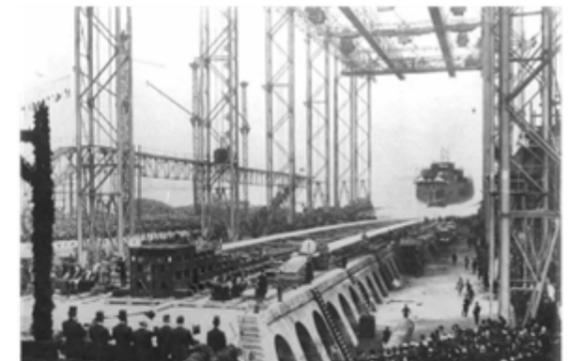
A 150 ton crane vessel and a railway pier at the far right (1908)



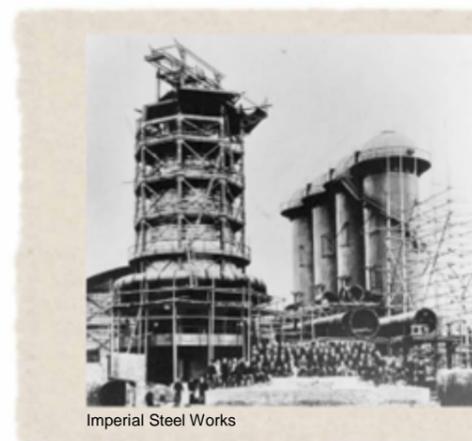
Western-style headquarters building completed at the end of 1908



Kawasaki's first locomotive, Type 6700, delivered to the Ministry of Railways in 1911



Haruna battlecruiser launch ceremony (1913)



Imperial Steel Works

Imperial Steel Works Launched with an Eye to Modernization

As the Sino-Japanese War fueled the building of steel mills in Japan, the government drafted a coordinated plan. Yahata, a town located in Fukuoka Prefecture's Onga district (currently Kitakyushu City), was chosen as the site for a steel mill due to its favorable location in terms of proximity to military facilities, transportation, and supply of coal. The government purchased land in 1896 and started construction the following year. On February 5, 1901, the Imperial Steel Works, the largest steel mill in Asia, went into operation following the lighting ceremony held at its No. 1 blast furnace. The integrated iron and steel mill, with an annual production capacity of 90,000 tons, went into operation at the dawn of the twentieth century. While the mill got off to a rocky start, the outbreak of the Russo-Japanese War in 1904 eventually fueled production, which ramped up dramatically the following year.

Chapter 2

Hardships

1914–1932

Taisho 3

Showa 7

World War I and Economic Crisis amid Postwar Recession

After the Russo-Japanese War, Japan fell into a chronic recession, but with the outbreak of the First World War in 1914, orders for military supplies and daily necessities flooded in, creating an economic boom. The shipbuilding industry was also booming, and Kawasaki found itself building destroyers and submarines one after another. The company also built a large number of 5,000 ton stock boats due to growing demand for merchant ships. Backed by a government law promoting the steel industry, the company created a system to manufacture its steel products all in-house.

When World War I ended, the shipbuilding industry lost steam. Kawasaki took its inventory of stock boats and entered the marine transportation market with the establishment of Kawasaki Kisen Kaisha in 1919. The company also worked to expand its automobile production and steel structure divisions, as well as enter the aircraft market.

Due to the recession following World War I, the Washington Naval Treaty limiting the construction of large warships, and financial crisis, Kawasaki faced its first real business crisis since its foundation. Scrambling to raise funds, President Matsukata set up a new company based at the Hyogo Works and used it as collateral against a loan. Hence, Kawasaki Rolling Stock Manufacturing Co., Ltd. was established on May 18, 1928.

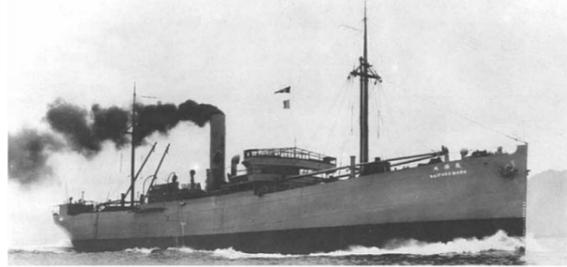
Eight days later, President Matsukata resigned, and Fusajiro Kajima took over the company reins.

Major organizational changes and personnel shakeups seemed to put the company back on track, but the Great Depression triggered by the stock market crash on Wall Street in October 1929 dealt it a severe blow.

As a result, on July 20, 1931, the company filed for a restructuring-type bankruptcy in the Kobe Ward Court. President Kajima died suddenly on July 29 the following year.



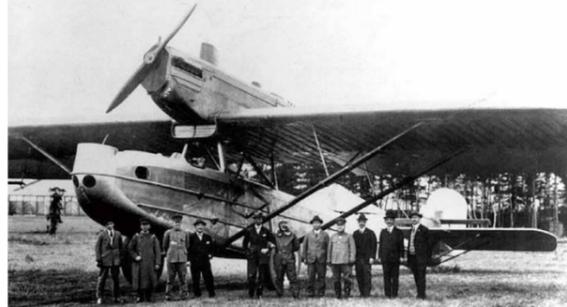
Locomotive plant (circa 1916), which produced 136 Type 9600 steam locomotives in 1922



Official trial run of the Raifukumaru (1918)



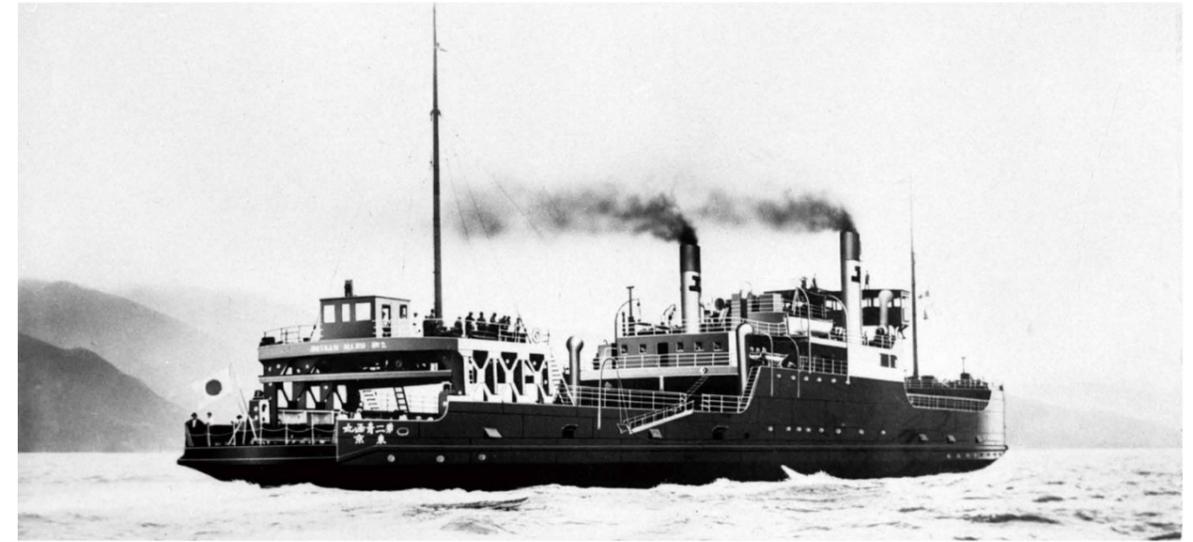
Four-ton automatic freight car (prototype) for the Japanese Army delivered in 1919



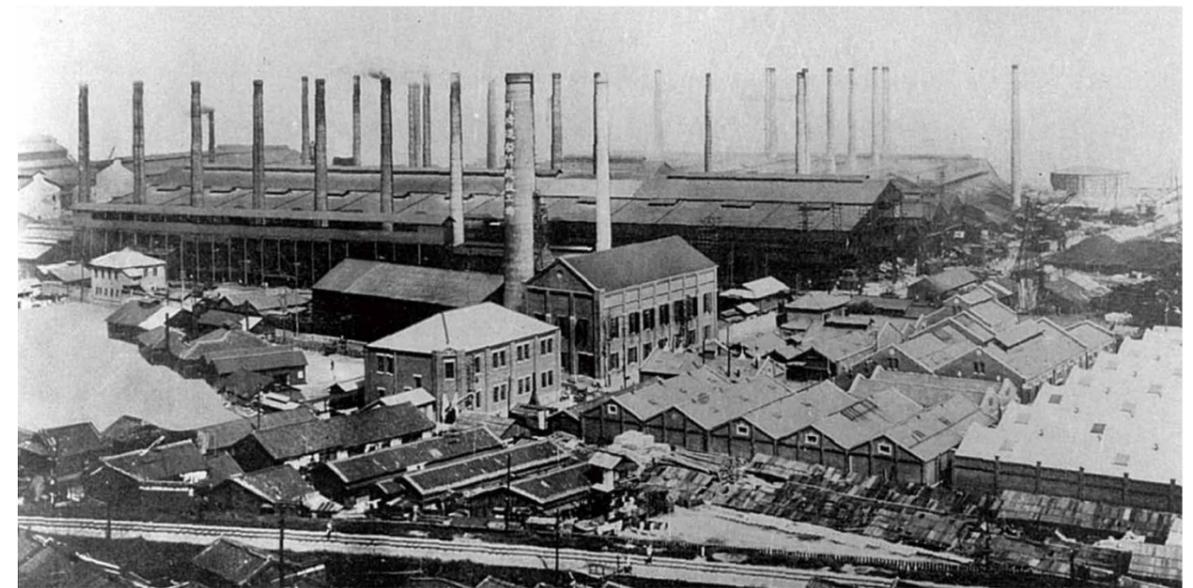
Kawasaki-Dornier Do. N prototype heavy bomber (1926; The fourth person from the left is President Matsukata)



Eitai Bridge just before it was completed in 1926.



The No. 2 Seikanmaru train ferry delivered to the Ministry of Railways in 1930



Sheet-metal plant (circa 1930), renamed Fukiai Works in 1928



Wall Street, New York, the epicenter of the Great Crash

Showa Era Dawns in the Shadow of the Depression

The recession following World War I (1914–1918) had a major impact on the Japanese economy, which lasted into the early part of the Showa period (1926–1989). This same period witnessed the Great Kanto Earthquake of September 1923, and a rash of bank runs sparked by the redemption of discounted earthquake bonds. The one-two punch of the post-World War I recession and Great Kanto Earthquake led to a full-blown financial panic. Meanwhile in the United States, Wall Street watched share prices on the New York Stock Exchange plummet on October 24, 1929. Japan, which had implemented austerity measures that shunned the gold standard, suffered a serious blow. Small and medium-sized commercial and industrial enterprises, such as those in the raw silk and cotton industries, went belly-up one after another, and unemployment rose sharply.

Chapter 3

The Comeback

1933–1945

Showa 8

Showa 20

Business Turnaround and Operations during World War II

In March 1933, Hachisaburo Hirao took over the helm as company president and paved the way to corporate rehabilitation. At the time, the Japanese economy was showing signs of recovery following the Manchurian Incident. President Hirao, who had done everything possible to get business back on track, eventually took a seat in the House of Peers upon imperial appointment, and in December 1935, Shosuke Itani, the senior managing director, became the fourth president.

After the Manchurian Incident, aircraft became increasingly important, and Kawasaki sought to strengthen its production system, establishing Kawasaki Aircraft Co., Ltd. in November 1937. The company's business had already expanded beyond shipbuilding and was moving further towards heavy industry. On December 1, 1939, the company changed its name to Kawasaki Heavy Industries, Ltd. When the Pacific War broke out in 1941, government control over industry tightened. As the war progressed, the company expanded its shipbuilding operations overseas. It was also involved in the management of the Jakarta shipbuilding factory established by the Navy on the island of Java. In August 1942, the company opened the Dalian Electric Works in Dalian City.

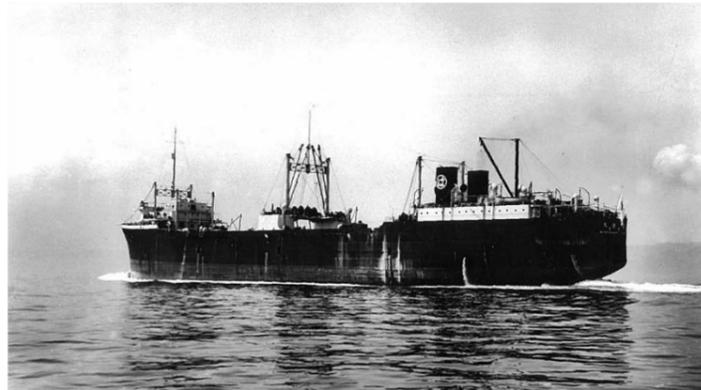
Under the wartime regime, Kawasaki continued to expand its steelmaking operations as well. The steel plate, steelmaking, specialty steel, and forging plants were operating at full swing.

Air raids began intensifying at the end of 1944, and in March of the following year the Kobe Air Raid took a tremendous toll on the company. Ninety facilities, including the shipbuilding factory offices, were burned to the ground. On top of that, most of the head office was damaged in the air raid that occurred in June of the same year.

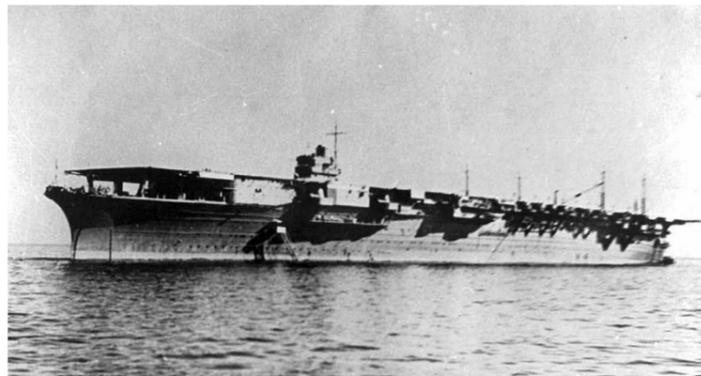
In August 1945, the Pacific War finally came to an end when Japan surrendered unconditionally to the Allied Forces.



Type 92 fighter, which was adopted by the Japanese Army in 1931



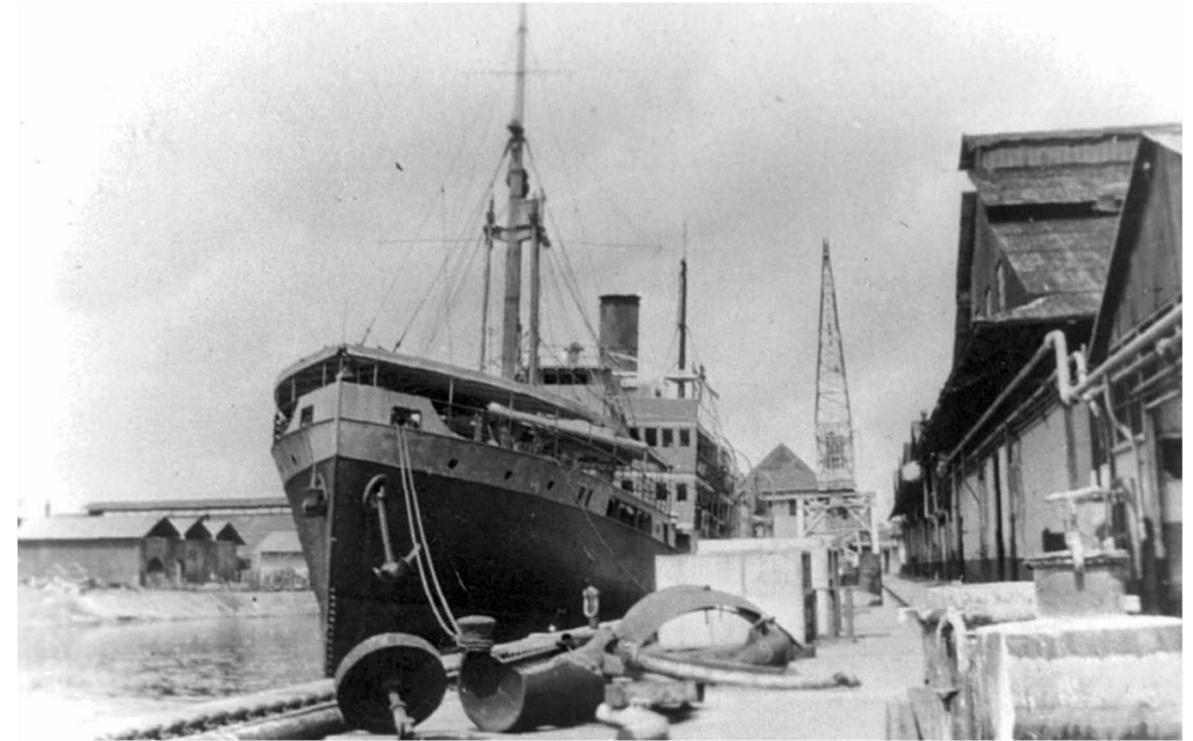
The Nisshinmaru, Japan's first whaling ship delivered to Hayashikane Shoten in 1936



The Zuikaku aircraft carrier delivered to the Ministry of the Navy in 1941



Senshu Works, specializing in submarines, opened in 1942 and built 30 submarines by the end of World War II (1945)



Jakarta Shipyard opened in 1942



Installation of penstocks (built in 1944) during construction of the Songhua River Power Station (Manchuria)



Kobe damaged by an air raid, gantry cranes in the distance to the right



Shoppers during wartime controls

Belt Tightening as the War Grows Worse

July of 1937 saw the beginning of the long protracted Second Sino-Japanese War. In 1938, Japan passed the National Mobilization Law placing labor, goods, prices, finance, business activities, and even speech under state control. Then in 1939, when World War II began in Europe, Japan enacted the Price Control Ordinance. All prices and wages were frozen at what they were on September 18 of the same year, during which time new official standards were established, and official prices were set for everything from fresh produce to furniture. After 1942, tickets, passbooks, ration tickets, and purchase rights were required to purchase daily necessities.

Chapter 4

Reconstruction 1946–1954

Showa 21

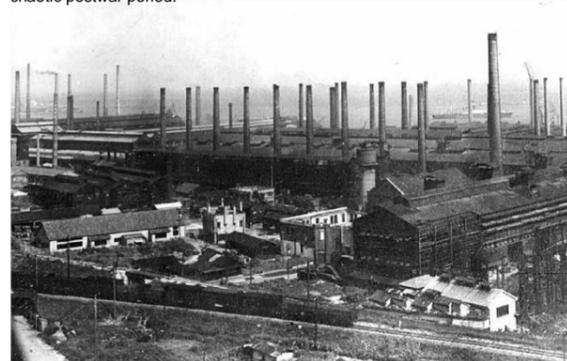
Showa 29

Path to Postwar Reconstruction and Resumption of Production

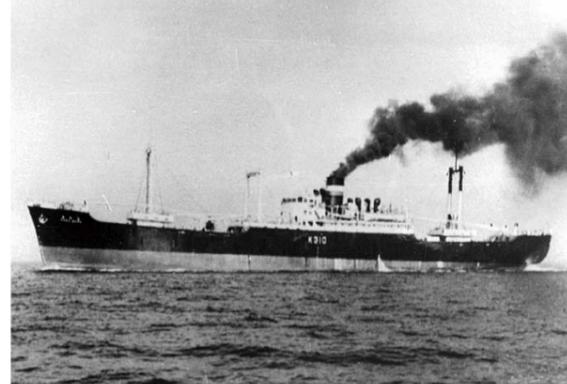
Post-war Japan went through a series of various reforms implemented under the direction of the General Headquarters of the Allied Powers (GHQ). In October 1945, Kawasaki was designated as a zaibatsu company along with Mitsui, Sumitomo, Mitsubishi, and others, and the following year, President Itani and most of the management were forced to resign due to GHQ's purge. In response, the company submitted a restructuring plan to the government. The eventually approved plan called for the continuation of the company and the establishment of a second company that was a spin-off of the steelmaking division. On August 7, 1950, at an ordinary general meeting of shareholders and general meeting on the establishment of the second company were held, and Kawasaki Steel Corporation was born. Kawasaki reorganized itself with a focus on the shipbuilding division with Toshio Tezuka at the helm as its fifth president. When the Korean War broke out in June 1950, the international balance of payments improved as industry boomed again due to an increase in special procurements by the US military as well as ordinary exports. During this period, under the government's shipbuilding program, Kawasaki produced a total of 12 ships (approximately 82,000 gross tons), including eight cargo ships, two tankers, a whaleboat, and a buoy tender for the Japan Coast Guard. However, the July 1953 armistice agreement put the brakes on the world economy as well as the Korean War. Working against this backdrop, the company focused on reeling in orders for ship repairs and land-based construction. Once Kawasaki's third floating dock was completed in June 1953, the volume of repair work doubled in no time. At the same time, the steel structure division had just finished constructing penstocks and dam gates for the Sakuma Power Station. It was also awarded various bridge contracts. The company also constructed a number of steel frames, including those for Koshien Stadium's large infield roof, nicknamed the Iron Umbrella, as well as the Hanshin and Sankei Kaikan Buildings in Osaka City.



Kawasaki made kitchenware and farm equipment to get through the chaotic postwar period.



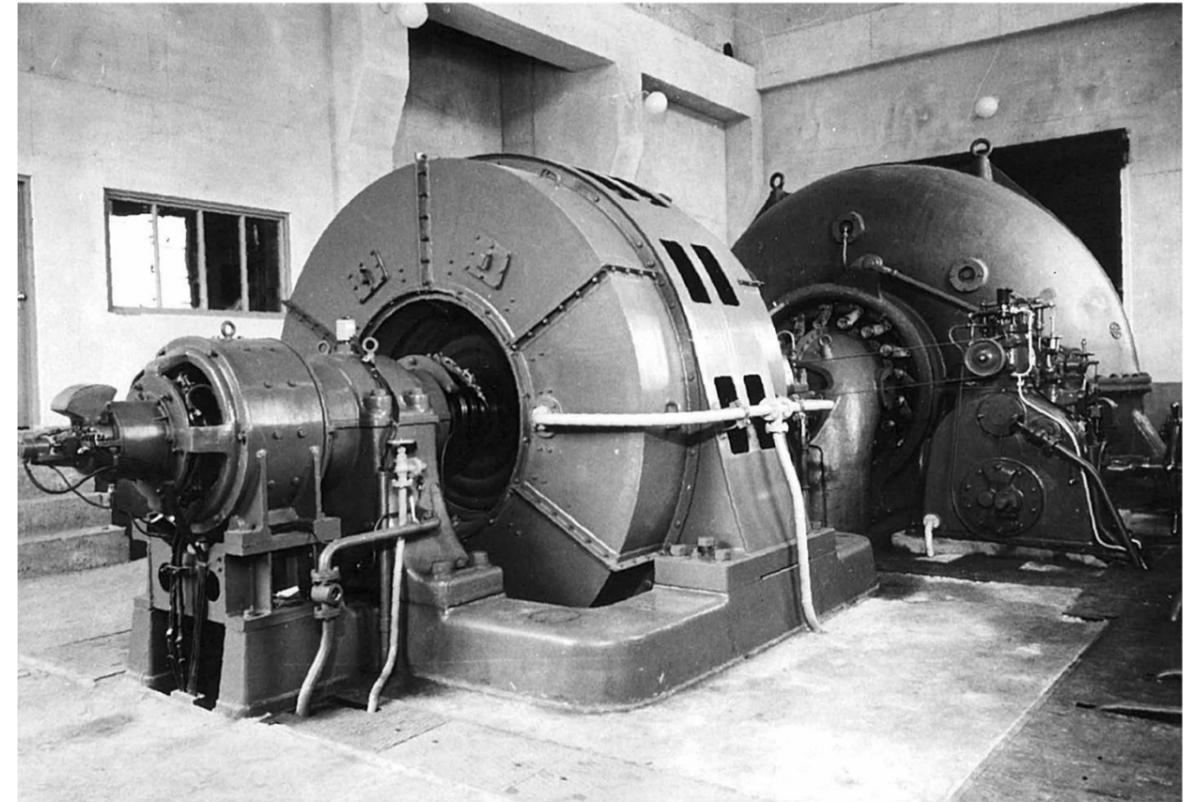
The Fukiai Works produced thick and thin steel plates after the end of World War II.



Kowamaru cargo ship (first AB class ship produced after the war) delivered to Daido Kaiun in 1949



The Tokyo Office was renamed the Tokyo Branch (Shojikisha Building) in 1950.



Water turbine generator delivered to Tottori Prefecture's Hatasato Power Station in 1953



Third floating dock completed in 1953



Chrysanthy L tanker delivered to United Shippers Ltd., S.A. in 1955



A thriving Tokyo Stock Exchange fueled by the Korean War boom

From Dodge Line Bust to Korean War Boom

Inflation in post-war Japan was exacerbated by an imbalance between goods and currency. In order to solve this economic crisis, Joseph Dodge was sent to Japan as a special envoy of the U.S. government in February 1949 where he implemented a strict nine-point economic stabilization program that included balancing the budget, improving tax collection, limiting credit extension, and stabilizing wages. This policy of austerity fomented an economic "stabilization crisis" that pushed Japan further toward a depression. Then the crisis took a turn with the outbreak of the Korean War in June 1950, and the economy took off as special procurements by the U.S. military soared. Since the textile industry and the metal industry were especially prosperous, this economic boom was sometimes referred to as the "itohen (thread-related) boom" or "kanehen (metal-related) boom" in Japanese.

Chapter 5

Breakthrough

1955–1968

Showa 30

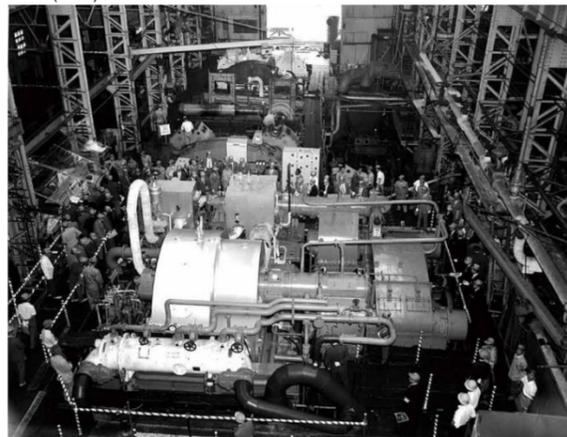
Showa 43

Becoming a Comprehensive Heavy Industry Giant in the High Economic Growth Era

As the global economy hummed along, Japan's shipbuilding industry experienced its first export ship boom in the fall of 1954, followed by a second boom in the 1960s. Kawasaki worked to continually expand its No. 4 building berth to keep pace with the uptick in demand for larger vessels. The company also started constructing a shipyard in Sakaide City, Kagawa Prefecture. Dubbed the Sakaide Works, it commenced operations in March 1967. Kawasaki's shipbuilding division was now producing 350,000 DWT class vessels. In June 1960, Oyashio, the first postwar domestic submarine ordered by the Defense Agency (now the Ministry of Defense), was completed with orders for more submarines continuously flowing in thereafter. Leveraging its submarine construction technology, the company also entered the field of marine development, and in March 1969, it delivered the Shinkai submersible to the Japan Coast Guard for marine research and observation. Meanwhile, the company worked on strengthening its land-based operations. In 1958, the Akashi Works specializing in small four-stroke diesel engines was opened. Then in 1968, the Nishi-Kobe Works specializing in hydraulic systems went into operation. Before that, two steel structure plants, the Kakogawa Works and the Noda Works, commenced operations in 1962 and 1964 respectively. Following the completion of the industrial machinery factory at the Kobe Works in 1962, Kawasaki merged Yokoyama Kogyo Co., Ltd., a manufacturer of industrial, civil engineering, and transportation machinery, in 1966. The company also started working on a reorganization and adopted the divisional system in November 1961. It launched five business divisions respectively specializing in shipbuilding, machinery, industrial machinery, precision machinery, and steel structure. When Masashi Isano took office as president in December 1961, his first task was to promote the divisional system he had introduced while navigating choppy waters.



Launching ceremony of the Haikwang tanker during the first export ship boom (1956)



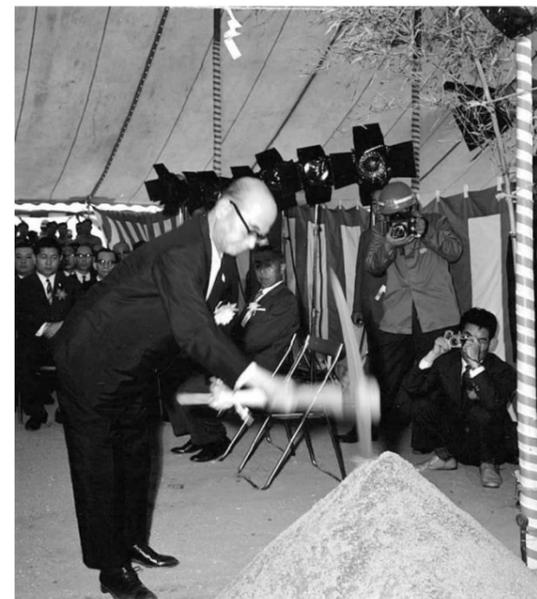
Unveiling of the first U-Plant marine steam turbine (Kobe Works, 1964)



First model of Kawasaki-MAN K10Z93/170E diesel engine



Höegh Mallard bulk carrier delivered to Leif Höegh in 1966



Groundbreaking ceremony for Sakaide Works (1966)



Nishi-Kobe Works just after its opening in 1968



Shinkai research submersible delivered to the Japan Coast Guard in 1969



Opening ceremony of the Tokyo 1964 Olympic Games

Asia's First Olympic Games Held in Tokyo

The Games of the 18th Olympiad opened on October 10, 1964. Their success was a long-held dream of Japan come to fruition 20 years after the end of the war. More than 1 trillion yen was spent on Olympic-related projects, with 80% being used to improve transportation networks such as the construction of the Tokaido Shinkansen, expressways, and subways. The Tokyo Olympic Games, the first Olympics to be held in Asia, drew about 7,500 athletes and officials from 93 countries and regions around the world. Japan won 16 gold, 5 silver, and 8 bronze medals during the 15-day event. It finished third in gold medals, just behind the United States and Soviet Union, to the thrill of a nation overjoyed by an outcome that exceeded all expectations.

Chapter 6

Rebirth

1969–1972

Showa 44

Showa 47

Three Companies Merge into a Comprehensive Heavy Industrial Enterprise

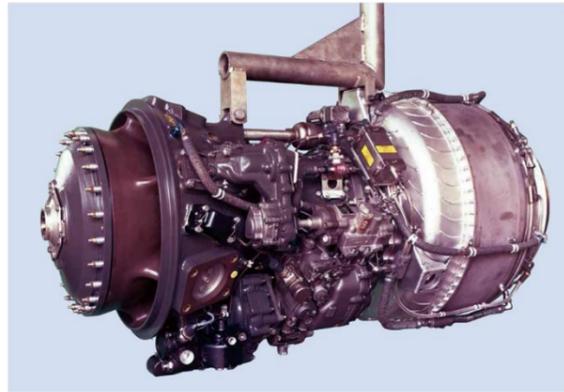
As Japan's balance of payments showed a steady surplus in the 1960s due to its rapid economic growth, developed nations pressed for capital market liberalization. As a result, a number of companies merged or reorganized in order to compete in the international arena. Kawasaki merged with Kawasaki Aircraft and Kawasaki Rolling Stock Manufacturing to re-emerge as a comprehensive heavy industrial enterprise covering land, sea, and air. On April 1, 1969, the new Kawasaki Heavy Industries was established, and Kiyoshi Yotsumoto took office as its seventh president in November of the same year.

Following the merger, the Technical Institute was relaunched to bring together the strengths of the three companies under one roof. This new research facility consisted of eight laboratories—two specializing in machinery and six others specializing in fluid structure, controls, metals, chemical physics, welding, and machining technology. In June 1971, another Technical Institute was built at the Akashi Works to serve as the company's central research laboratory.

On top of all this, Kawasaki launched a host of new businesses spanning the fields of land, sea and air. In its land-based operations, the company expanded into the field of industrial robots and developed the Kawasaki-Unimate 2000, the first domestically produced industrial robot. It also built the Harima Works, which was designed to produce large industrial machinery and steel structures. Then in 1972, the company merged with Kisha Seizo Co., Ltd. to become Japan's largest manufacturer of rolling stock.

Kawasaki saw its shipbuilding orders begin to surge in the latter half of 1972 and built a number of ultra-large tankers and ultra-large container carriers. It also launched Japan's first teardrop-shaped submarine.

In its aircraft operations, the company received orders for the C-1, Japan's first twin-engine transport jet, and the F-4EJ, a jet fighter to be jointly produced with Mitsubishi Heavy Industries, Ltd. for the Air Self-Defense Force.



The first Japan-made KT53-11A gas turbine engine (1967)



Signing of memorandum of understanding on the merger of the three Kawasaki companies (1968)



Kawasaki-Unimate 2000, the first Japan-made industrial robot completed in 1969



Technical Institute at the Akashi Works completed in 1971



Kawasaki 900 Super 4 released in 1972



Sakaide Works, where construction of its first ship began at the No. 3 Dock (right) (1972)



Kawasaki Computer-controlled Vehicle (KCV) system test line installed in 1974



Osaka Expo venue

Expo '70 Showcases Japan as an Economic Superpower

Situated in the Senri Hills overlooking Suita City, Osaka and held under the banner of "Progress and Harmony for Mankind," the Japan World Exposition, Osaka, 1970 (Expo '70) lasted from March 15 to September 13, 1970. The 183-day-long event drew 77 participating countries and a total of 64,210,000 visitors, the highest attendance for any exposition in history. The expo featured 117 pavilions and the Tower of the Sun sculpture, designed and created by Taro Okamoto, at the center of it all. The biggest magnets of attraction were the U.S. and USSR pavilions, where exhibits of the moon rock and spacecraft took center stage. Expo '70 became an event that symbolized Japan's postwar economic recovery and promoted the country as an economic superpower to the world.

Chapter 7

Ordeal

1973-1980

Showa 48

Showa 55

Oil Crisis and Deterioration of the Business Environment

In the wake of the first oil crisis triggered by the Yom Kippur War in the autumn of 1973, the shipbuilding industry was in dire straits. Kawasaki saw a sharp drop in orders for tankers along with a spate of cancellations, changes in ship types being ordered, and requests to postpone deliveries of vessels already under contract. Although the company took measures to improve profitability beginning in fiscal 1975, it posted its first postwar loss in fiscal 1978. Facing the challenge head-on, the company spun off its automotive division, which had been bleeding red ink since the late 1960s, and established Kawasaki Coach Company, Ltd. in April 1974. Meanwhile, Kawasaki built a motorcycle plant in North America, where its products were wildly popular, and began local production in 1975. It was the first foothold in the U.S. for the Japanese automobile industry, building both motorcycles and four-wheeled vehicles. The company also set its sights on the energy sector, with a focus on everything from coal utilization technology to gas turbine generators and nuclear power as it worked to make technological strides across the board. This included the construction of Japan's first LNG carrier, the development and production of the BK117 multipurpose twin-engine helicopter, and the development of the Kawasaki-Unimate 6060, the world's first vertically articulated, group-controlled multi-robot system. In June 1977, Zenji Umeda assumed the office of company president. When the shipbuilding crisis worsened the following year, Kawasaki initiated measures to streamline its operations by downsizing, reorganizing, and integrating business divisions. It also implemented special personnel measures to significantly reduce total labor costs, including cutbacks in wages, year-end bonuses, various allowances, and travel expenses. Meanwhile, as part of the measures to improve company-wide profitability, consolidate and streamline plants, and effectively use existing facilities, the company relocated the operations of the Kakogawa Works to the Harima Works and sold the site.



Kobe Works faces sinking demand for ships in the wake of the 1975 oil crisis



Production line at Kawasaki Motors Corp., U.S.A. (KMC) Lincoln Plant, which went into operation in 1975



Ceremony debuting the 500 Series Shinkansen (Hyogo Works, 1977)



Kawasaki-Unimate 6060 group-controlled multi-robot system developed in 1978



Maiden flight of the third BK117 helicopter prototype (Gifu Works, 1979)



COM (coal-oil-mixture) pilot plant for which Kawasaki developed production facilities and boilers (1980)



Main tower of Onaruto Bridge under construction (completed in 1981)



Construction of Kawasaki Panel System, Kawasaki's proprietary insulation system for LNG carrier tanks



Toilet paper shortage triggered by the oil crisis

Low Growth Era Following the Oil Crisis

In 1973, the Yom Kippur War triggered the first oil crisis. During this four-month period, prices spiraled wildly upward, with wholesale prices jumping 21.1% and consumer prices 12.9%. Prices of petroleum-based products skyrocketed, along with the prices of toilet paper, tissue paper, detergent, and more. People hoarded while retailers held back stock, driving people into a state of panic. Japan's real economic growth rate was minus 0.2% in fiscal 1974, dropping below zero for the first time in the postwar period. The oil crisis permanently put the brakes on Japan's era of rapid economic growth as the country settled in for a slower ride.

Chapter 8

Persistence

1981-1986

Showa 56

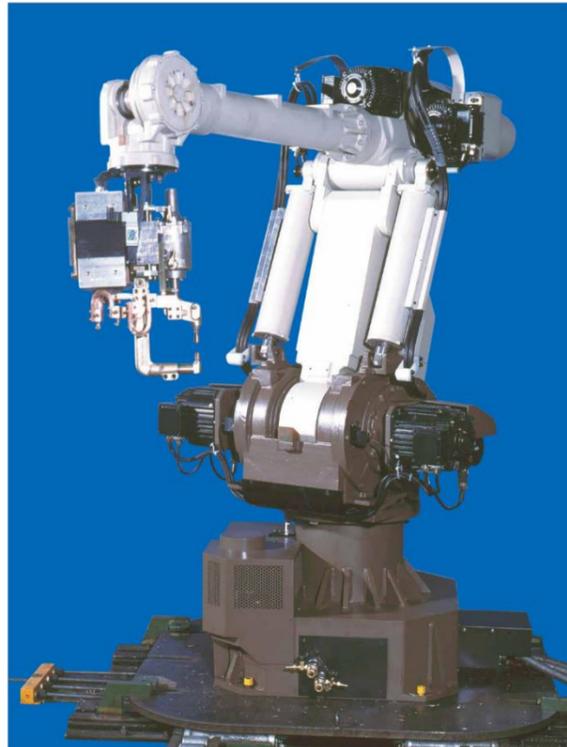
Showa 61

Turbulent Global Economy and Efforts to Turn Business Around

As part of its efforts to break out of the prolonged recession, Kawasaki aggressively worked to win orders for large-scale plants in overseas markets. However, the border conflict between Iran and Iraq caused major delays and cost increases in cement plant construction in Iraq. It was under these difficult circumstances that Kenko Hasegawa took over the reins as company president in June 1981. The slowdown in the U.S. economy put a major dent in the profitability of the motorcycle division, resulting in a net loss of approximately 5.8 billion yen for the fiscal year ended March 31, 1983, and the company made the difficult decision not to pay dividends for the first time in 33 years. Kawasaki then set up an emergency task force and took a series of measures to get back on track, including moving up delivery dates for overseas plant construction projects, quickly restructuring the motorcycle business, and cutting overheads as well as other expenses across all divisions. As a result, in the fiscal year ended March 31, 1985 the company was back in the black for the first time in three years, posting recurring profit of about 5.5 billion yen. It also brought the dividend payout ratio back to 6%.

The business environment got rocky once again though as the Plaza Accord of September 1985 pushed the value of the yen up, and in May 1986 Kawasaki set up a corporate restructuring committee. After downsizing businesses for which demand had declined and those that had lost their competitive edge in the global market, Kawasaki began focusing its management resources on businesses that enjoyed a lot of domestic demand and those with growth potential, in order to secure profits.

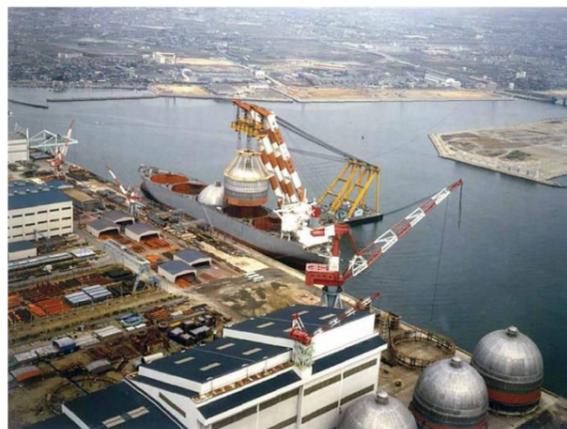
During this time, large ships such as bulk carriers and LNG carriers were being built one after another. The company could also now lay claim to manufacturing Japan's first deep-sea rescue boat, a semi-submersible oil drilling rig, the Asuka, a domestically made short takeoff and landing (STOL) aircraft, and the world's largest wheel loader.



EX100 large electric robot



Wasia water treatment plant (Saudi Arabia) completed in 1982



Installing tanks on the Bishumaru LNG carrier (delivered in 1983) at the Harima Works



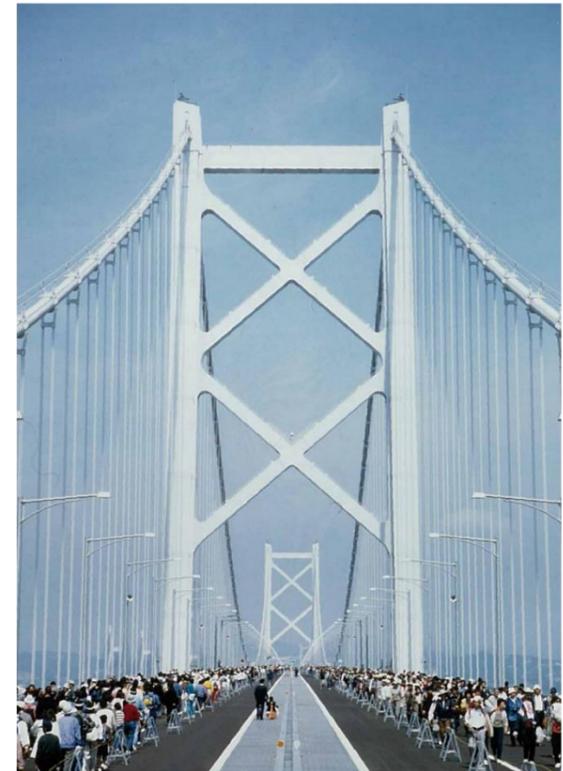
Kouzu Cleaning Center in Koriyama City, Fukushima Prefecture completed in 1984



A friendship agreement for rolling stock production signed with China's Ministry of Railways (1985)



Rollout of the XT-4 intermediate jet trainer aircraft (Gifu Works, 1985)



Celebrating the opening of the Seto Bridge Walk (1988)



New York Plaza Hotel where G5 meeting was held

Yen Rises Sharply with the Plaza Accord

In September 1985, the Group of Five (G5) finance ministers met at the Plaza Hotel in New York and agreed to intervene in currency markets to boost domestic demand in Japan and Germany. The Plaza Accord triggered a rapid appreciation of the yen against the dollar, and the exchange rate, which had been in the 240 yen range before the Plaza Accord, reached 126 yen in December 1987. This sharp appreciation of the yen worsened corporate earnings, especially for export industries. Aiming to stimulate domestic demand in response to the recession driven by the strong yen, Japan cut the official discount rate five times between January 1986 and February of the following year until it finally reached 2.5%, the lowest level in the postwar period.

Chapter-9

Innovation

1987-1996

Showa 62

Heisei 8

Building a Solid Business Foundation after Overcoming Crisis

As the economic recession continued to rock the shipbuilding industry and the sharp appreciation of the yen put a damper on export-related businesses, Kawasaki managed to weather the storm as it moved ahead with restructuring the company. When Hiroshi Ohba became the tenth president in June 1987, he implemented a two-stage restructuring plan that overhauled the company's departments and factories as well as optimized the size of the workforce.

As a result of this reorganization, seven new business groups were established, which were the Ship, Rolling Stock, Aerospace, Machinery, Environment/Energy Plant, Industrial Machinery & Steel Structure, and CP Groups. Factories were also restructured through relocations, consolidations, and closures. The number of employees, which stood at 21,500 as of the end of October 1986, was reduced to 17,000 by the end of the following fiscal year.

In November 1992, the company formulated this corporate vision for its centennial anniversary in 1996: We will work at becoming an international leader in cutting-edge fields of technology that contributes to society through businesses that encompass the spheres of land, sea, and air, while building a flexible but strong business structure. In order to regain financial stability and achieve sustainable growth, the company made strengthening inter-division and inter-group activities one of its management action policies and decided to push forward with joint strategies among business divisions as well as between business divisions and the head office.

On October 15, 1996, Kawasaki celebrated its 100th anniversary. Various commemorative ceremonies and events were held to mark the occasion, including welcoming former British Prime Minister Margaret Thatcher.



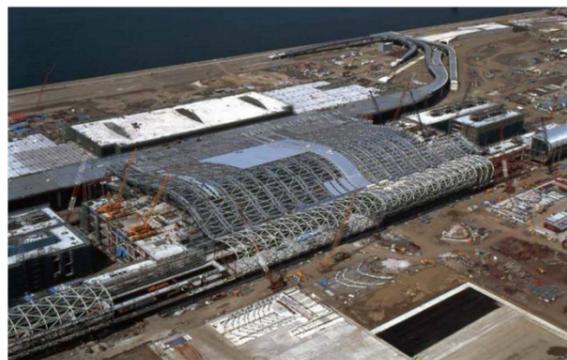
Electric locomotive manufacturing line at Sakaide Works (1989)



Eurotunnel monument erected to commemorate the completion of the Channel Tunnel



Motorcycle production line at Kawasaki Motors Enterprise in Thailand



The steel frame for the roof over the south section of the Kansai International Airport passenger terminal (seen here under construction) is Kawasaki-built.



Kobe Crystal Tower housing the Kobe Head Office completed in 1993



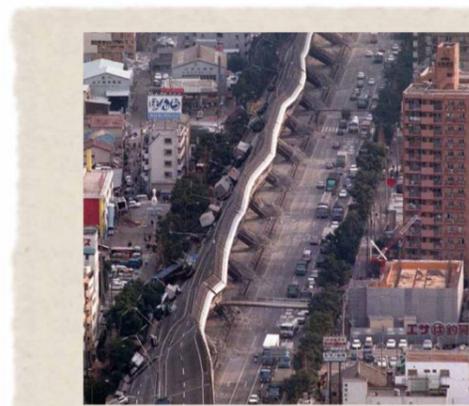
Kawasaki gives Hyogo Prefecture and Kobe City 100 million yen each to support disaster victims as part of its 100th anniversary event.



Completion ceremony for the Nagoya Works 1 (1993)



Special lecture by former British Prime Minister Thatcher to commemorate the 100th anniversary



Expressway collapses during the Great Hanshin-Awaji Earthquake

Great Hanshin-Awaji Earthquake

At 5:46 a.m. on January 17, 1995, a massive earthquake, whose epicenter was in Japan's Akashi Strait, suddenly struck. The quake dealt a devastating blow to Kobe City, which was directly hit by the magnitude 7 earthquake, along with Awaji Island, Nishinomiya City, and Ashiya City. Taking the lives of more than 6,300 people, the quake left a trail of wholesale destruction that included homes, highways, bullet train and private railway tracks, as well as port facilities. Lifelines such as transportation, electricity, gas, water, and telephone services were cut off. More than 100,000 houses were destroyed, forcing 300,000 people to find shelter in nearby schools and parks. Volunteers from all over Japan rushed to the disaster area, leading to the year later being dubbed the "first year of volunteerism."

Part **2**: The Last 25 Years (Overall History)

1997–2021

Aiming to Become a Truly Global Company
Challenge to Create New Value

1.

New Horizons for the 101st Year

Chapter 1

Transforming Management and Launching Spin-offs

1997–2006

Kawasaki celebrated its 100th anniversary in 1996. This year, in which the company achieved its highest earnings ever (on a non-consolidated basis), was designated as the year of "New Beginnings" and marked the beginning of a new chapter in its history for a new century.

The Japanese economy had been in a slump since the burst of the bubble economy, and the sharp appreciation of the yen that started in 1999, in particular, dealt a heavy blow to Japanese exporters. The Kawasaki Group also suffered its second consecutive loss due to a prolonged economic slump and declining investments in public works projects.

In April 2000, the company formulated a medium-term business plan, "K21: From Heavy Industry to Flexible Enterprise," with the goal of returning to profitability. Under this plan, the company placed an emphasis on quality over quantity and aimed to shift its business model from an order-driven business model that promoted quantity with an aim to expand the market to a solutions-driven business model that focused on responding to actual customer needs.

In 2001, Kawasaki started transforming its business structure with a focus on selection and concentration. It adopted an internal company system to promote the independent management of each business. Identifying the aerospace business and the consumer products and machinery business as core businesses and the rolling stock business and the gas turbine and machinery business as growth businesses, the company invested its management resources in these operations. In order to respond flexibly to changes in the market environment, Kawasaki spun off the shipbuilding and precision machinery businesses in 2002, the plant business in 2005, and the environmental business in 2006.

On top of that, the company actively worked on consolidating plants, reducing interest-bearing debt, overhauling its personnel system, and forming alliances with other companies. As a result of these efforts, in fiscal 2006, the Kawasaki Group posted its highest profit figure since fiscal 1996.

1) A New Beginning

October 1996 would mark Kawasaki's 100th anniversary and the company celebrated the milestone with a host of commemorative events. The year marked a major turning point in the company's performance record. It posted sales of 1,043 billion yen and recurring profit of 38 billion yen, both the highest ever in its history (on a non-consolidated basis). This was proof that the management restructuring measures that had been implemented over the preceding ten years since 1986 had come to fruition.

During this period, the company encountered many challenges, including a serious shipbuilding recession, a substantial appreciation of the yen, a slump after the bubble economy burst, and the Great Hanshin-Awaji Earthquake. However, under the strong leadership of President Hiroshi Ohba, the company steadily rebuilt itself, aiming to build a flexible and strong corporate structure.

Kawasaki designated 1996 the year of "New Beginnings," signaling the start of a new chapter in its history as it looked ahead to a bright new century. In September of the same year, it formulated a medium-term business plan running from fiscal 1996 to fiscal 2001. It is outlined below.

[Management goals]

(1) Qualitative goals

<Corporate image and corporate structure>

- Excellent company with global operations in key industries related to land, sea, and air
- Build a flexible but strong business structure designed to weather any storm that may lie ahead

<Business areas for expansion and growth>

- Land, sea, and air transportation systems
- Energy solutions, including power generation
- Social infrastructure development, including environmental and recycling systems
- Plants and industrial machinery
- Consumer products

(2) Quantitative goals (FY2001)

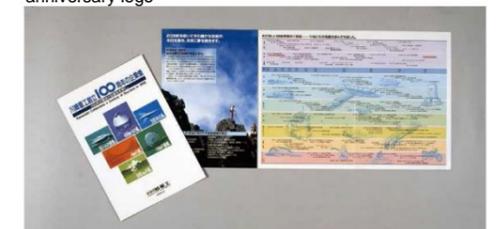
	Non-consolidated basis		Consolidated basis	
	Net sales	Recurring profit	Net sales	Recurring profit
FY2001 targets	1.2 trillion yen	(5%) 60 billion yen	1.5 trillion yen	70 billion yen

[Priority Initiatives]

Re-enforce the three management action guidelines to ensure business quality, enhance inter-division and inter-group activities, and make science-based decisions, while pushing forward with the following measures



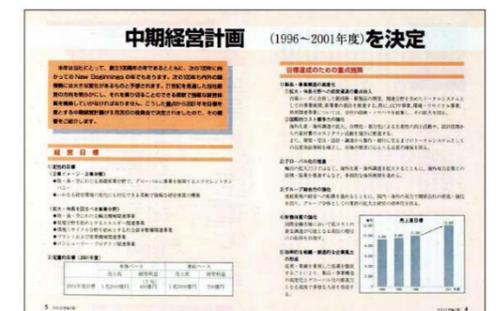
Advertisement featuring the 100th anniversary logo



Pamphlet promoting Kawasaki's 100th anniversary, "Corporate Vision for the 100th Anniversary"



President Ohba pictured with former British Prime Minister Margaret Thatcher who spoke at the 100th anniversary event



The medium-term business plan explained in the company newsletter

- (1) Improve product and business mix
 - (i) Focus management resources on growth areas
 - (ii) Strengthen international cost competitiveness
- (2) Expand operations globally
- (3) Strengthen the Group's comprehensive capabilities
- (4) Strengthen financial health
- (5) Create an efficient organization and creative corporate culture

In April 1997, when the mid-term business plan was fully launched, Ohba urged the new employees who would carry the torch into the next century to refine their unique skills, cultivate a flexible as well as strong mind and body, and become internationally minded people ready to work in the global arena.

2) Inauguration of Toshio Kamei as President

In June 1997, there was a changing of the guard with the company president, Hiroshi Ohba, being appointed chairman, and managing director, Toshio Kamei, being appointed president.

In his inaugural address, Kamei announced key strategies for achieving the goals of the medium-term business plan: (1) create and develop businesses that should be at the heart of Kawasaki's operations over the next one hundred years; (2) transform Kawasaki into a comprehensive systems engineering company; (3) drastically reduce costs with the aim of halving them; (4) make further inroads across the globe; (5) shift management's focus to consolidated accounting and return on equity (ROE); and (6) achieve a creative corporate culture.

In closing, he said, "In order to make Kawasaki a vibrant and innovative company as we move toward the 21st century, we must create a positive and healthy work environment where employees are free to openly discuss issues and unleash their full potential."

3) Restructuring and Reorganization of Business Groups

In order to thoroughly implement the key strategies laid out in the medium-term business plan, Kawasaki undertook an organizational restructuring from 1997 to 2000, with a focus on reorganizing its business groups.

In June 1997, the Machinery, Environment and Energy Group was established with the goal of expanding and growing energy and environment-related operations. The Precision Machinery Division was merged with the CP Group to form the Consumer Products & Machinery Group.

In April 1998, the Ship and Rolling Stock Groups were integrated to form the Ship & Rolling Stock Group. The aim was to improve engineering and production capabilities as well as efficiency through the integrated operation of the shipbuilding and rolling stock businesses.



President Kamei (left) and Chairman Ohba (right)



President Kamei's inaugural address in the company newsletter

In July of the same year, the General Purpose Gas Turbine Division and the FA and Robot Division's robot business were incorporated into the Consumer Products & Machinery Group. The FA and Robot Division's FA products were, however, left with the Industrial Machinery & Steel Structure Group to be handled by its Industrial Plant Engineering Division.

In April 1999, as a result of the reorganization of the Machinery, Environment and Energy Group and the Industrial Machinery & Steel Structure Group, the EPC (Engineering, Procurement, Construction) contractor business was newly consolidated into the Plant Engineering Group while integrated manufacturing and sales operations and plants were consolidated into the Machinery & Steel Structure Group. This change was intended to strengthen the company's overall engineering capabilities and expand its business.

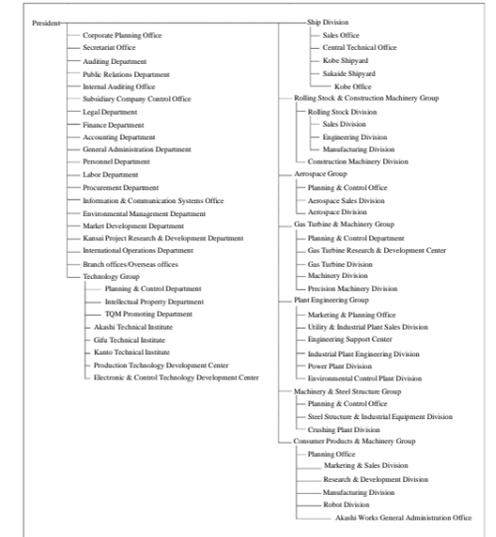
In April 2000, in a move to restructure the shipbuilding business, the Ship & Rolling Stock Group was abolished, and the Ship Division was set up to independently operate the shipbuilding business. In addition to that, the rolling stock business and the construction machinery business, which are similar in both technology and production, were integrated into the Rolling Stock & Construction Machinery Group. The Jet Engine Division, Machinery Division, General Purpose Gas Turbine Division, and Precision Machinery Division were all reorganized and integrated into the newly established Gas Turbine & Machinery Group. In order to further strengthen the company's technological development capabilities, the Gas Turbine Research & Development Center was established with an eye to bringing the gas turbine development functions of the Akashi Technical Institute, Jet Engine Division, and General Purpose Gas Turbine Division all under one roof.

4) Boosting the Financial Health of the Entire Group

As the pace of internationalization picked up, it was becoming more common for companies to be evaluated on a consolidated basis in line with global standards. In response to this trend toward consolidated accounting, Kawasaki reviewed its basic policy on the management of affiliated companies to improve the competitiveness and profitability of the Group as a whole. This included setting profit indices according to the characteristics and actual conditions of each company, clarifying personnel policies, and delegating certain authorities to the business units in charge. The overall reorganization of the Kawasaki Group took place from fiscal 1997 to fiscal 1999. It included some major changes as described below. In overseas markets, the company continued to expand its production bases in China and other Asian countries.

<Japan>

- In order to strengthen the operational foundation of the entire rolling stock business group, relevant affiliates were integrated and reorganized. Kawasaki Koki Co., Ltd. and Kawasaki Transportation Service Co., Ltd. were merged to establish the new Kawasaki Koki Co., Ltd. while Kawasaki Sanyo Co., Ltd., Kawasaki Railway Rolling Stock Engineering Co., Ltd., and Kawasaki Hyogo Business Center Co., Ltd. were all merged to form Kawasaki Rolling Stock Engineering Co., Ltd. (October 1998)
- In the construction machinery business, mergers were conducted with the aim of further improving the efficiency of sales company operations and boosting business activities tailored to local needs.



Organization chart (As of Apr. 1, 2000)

Four companies, including Kawasaki Construction Machinery, Chubu Ltd., Kawasaki Construction Machinery, Kinki Ltd., Asahi Construction Machinery, Ltd., and Kawasaki Construction Machinery Sales, Ltd., merged to establish Kawasaki Machine Systems, Naka-Nihon Ltd., while Kawasaki Construction Machinery, Kyushu Ltd. and Kawasaki Construction Machinery, Nishi-Nihon Ltd. merged to form Kawasaki Machine Systems Nishi-Nihon, Ltd. (July 1999)

- Kobe Crystal Tower Management Co., Ltd. and KOS Co., Ltd., a company operating under the Environmental Control Plant Division, were integrated to form Kobe Crystal Tower Service Co., Ltd., with an eye to centrally managing and operating office services in Kobe Crystal Tower. (October 1999)
- KGM Co., Ltd. absorbed its subsidiary, Sohara Works Co., Ltd. in order to streamline and simplify the subsidiary's operations. (October 1999)

After this, Kawasaki continued to work on the integration and reorganization of its affiliates whenever necessary for the purpose of improving their competitiveness, profitability, and efficiency.

<Overseas>

- In the Chinese market, where demand for steel structure products was growing by leaps and bounds, Kawasaki merged with COSCO-affiliated companies, such as COSCO Industry Company, to establish the steel structure production company, Shanghai COSCO Kawasaki Heavy Industries Steel Structure Co. Ltd. (October 1997)
- Kawasaki merged with a Thai company to create Kawasaki Motors Enterprise (Thailand) Co., Ltd. for the production and sales of motorcycles and general-purpose engines in a move designed to restructure the motorcycle business in Thailand. (December 1997)
- Kawasaki then founded the gas turbine sales and service company, Kawasaki Gas Turbine Europe GmbH, in Germany as base for making further inroads into the general-purpose gas turbine market. (May 1998)
- Looking to get a firm foothold in the Korean robotics market, the company launched Kawasaki Machine Systems Korea, Ltd., providing robots along with customer services and after-sales service training. (June 1999)

5) Implementing Reforms and Laying the Foundation for a New Age

Comprehensive Reform of Personnel Systems

• Revised personnel system for executives

In order to create the efficient organization and a creative corporate culture that was a key focus of the medium-term business plan (FY1996–2001), Kawasaki revised its organizational structure and personnel system for executives in January 1998. The company adopted a structure that would allow for the flexible allocation of human resources so that it could respond quickly to issues and challenges that were becoming more complex and diverse over time.



Shanghai COSCO Kawasaki Heavy Industries Steel Structure Co. Ltd.



Kawasaki Motors Enterprise (Thailand) Co., Ltd.

It replaced its sections with a group system. The purpose of this was to (1) enable departments to flexibly form an organizational structure and place personnel; (2) simplify the hierarchical structure within departments; and (3) promote the effective use of employees regardless of what their official qualifications were. Under the group system, the titles for section managers, such as "shukan" and "shuji," were abolished, and the qualification-based titles, "sanyo" and "sanji," were adopted for staff members and specialists both internally and externally. In April 1998, in order to shift away from a seniority-based system to an ability and performance-based system, the company widened the gap in salaries based on personnel evaluations. Any bonuses employees now earned were based on their current contribution to the company. An employee's bonus was no longer based on their salary which normally increased with annual pay raises. The revised system rewarded employees on the basis of their job qualifications and personnel evaluations (performance assessments).

• Revised personnel system for general employees

In April 1999, Kawasaki revamped its personnel system for general employees on the heels of the executive personnel system overhaul. In order to appropriately treat each employee fairly in light of his or her role, ability, and performance, the company revised the professional qualification and wage systems.

[New professional qualifications system]

Kawasaki introduced three categories of qualifications based on the concept of "expected roles:" G (operations), R (planning and development), and S (supervisory capacity and specialized skills).

[New wage system]

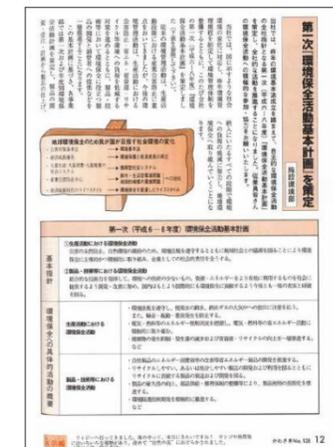
In order to fairly assess employees according to their roles in the G, R, and S categories, the company reduced the more seniority-oriented base salary and introduced distinct performance-based pay for each category. It also abolished the age-based pay for the R category in order to place more weight on the ability and performance of each employee.

Building a Foundation for Environmental Management

• Formulating the First Environmental Protection Activities Plan

Before the enactment and enforcement of Japan's Basic Act on the Environment in November 1993, Kawasaki had formulated its own environmental management regulations in April of the same year. The company established a new environmental management system to address not only conventional industrial pollution, but also urban, household, and global environmental problems as well.

It also formulated the first stage of its Environmental Protection Activities Plan (EPAP, FY1994–1996) to actively engage in independent initiatives aimed at promoting environmental conservation. Moving ahead with this plan, the company focused its environmental management activities on implementing measures aimed at reducing the environmental impact of its production activities, including preventing pollution, saving energy, conserving resources, and recycling. This included, among other things, developing products and technologies designed to help protect the environment and supplying environmentally friendly products to consumers.



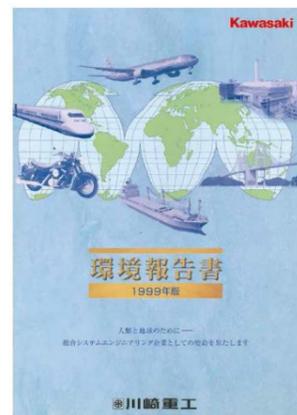
Explanation of the first stage of EPAP in the company newsletter



The Precision Machinery Division became ISO 14001 certified



Environmental Charter



Environmental Report (first issue)

Following this basic plan, business divisions formulated their own first and annual environmental protection activities plans. This was the beginning of Kawasaki's new environmental management initiative to protect the global environment.

● **Becoming ISO 14001 certified**

In 1997, Kawasaki began working to obtain ISO 14001 certification, an International Organization for Standardization (ISO) environmental management system (EMS) standard, to facilitate its environmental management activities. In February 1998, the Precision Machinery Division became the first Kawasaki organization to be certified, followed by the Robot Division in October of the same year and the Environmental Control Plant Division I in March of the following year.

● **Establishing the Environmental Management Department and Environmental Charter**

Recognizing protecting the global environment as one of its most important management issues, the Kawasaki Group established the Environmental Management Department in April 1999. The department's function was to oversee the global environment-related matters of the entire company (excluding environmental business) and plan as well as implement specific measures aimed at environmental management for sustainability.

In August of the same year, Kawasaki established the Environmental Charter. Outlining its basic environmental philosophy and action guidelines for taking on the task of environmental conservation across the company, the document made Kawasaki's stance on environmental issues clear to the entire world.

Environmental Philosophy

As a company in key industries related to land, sea and air, Kawasaki is deploying its business activities globally in pursuit of reducing environmental impact and creating a sustainable society. This makes us to commit ourselves to contribute to the sustainable development of society through our environmentally conscious business activities, technologies and products that preserve the global environment.

In 1999, Kawasaki published the first issue of its Environmental Report, which highlighted the company's environmental conservation activities. This marked a new chapter on how the company would share information on its environmental initiatives with the public.

2.

Aiming to Return to a Sustainable Growth Path

—Establishment of Spin-off Companies

1) Inauguration of Masamoto Tazaki as President

In June 2000, Kawasaki's president, Toshio Kamei, became its chairman, and Masamoto Tazaki, its senior managing director, became president.

At the time, due to the prolonged economic stagnation and lack of government spending on public projects, Kawasaki found itself between a rock and a hard place. It posted losses for two consecutive fiscal years, 1999 and 2000, with many of its business units beset with structural problems, such as slumping orders and falling prices due to fierce competition.

Tazaki zeroed-in on achieving profitability in fiscal 2001, announcing he would steer the company through this rocky business environment with a focus on implementing a selection and concentration strategy, making the most of available management resources across the organization, shifting from a quantity-first approach to a quality over quantity approach, and cultivating a corporate culture that would be open to team reorganization. He reassured employees that Kawasaki could evolve from a heavy industry company into a flexible enterprise if everyone put their heads together and moved toward the same goal despite any obstacles and conflicts that might arise along the way.

He impressed upon employees he was absolutely determined to make the year 2001, the dawn of the 21st century, a new beginning for a company poised to make a turnaround.

2) Formulation of the K21 Medium-Term Business Plan

Under the new direction of Masamoto Tazaki, Kawasaki implemented various measures to improve its financial position and ensure that it was selective about the orders they accepted, with the goal of returning to profitability by fiscal 2001. At the same time, the company formulated a medium-term business plan, "K21: From Heavy Industry to Flexible Enterprise" (FY2000–2004), with an eye to new growth in the 21st century (see Table I).

This medium-term business plan aimed to increase enterprise value, via the following four strategies with an emphasis on quality over quantity and an aim of achieving an ROIC* of 5% or more (after tax).

(1) Selection and concentration

Core businesses: Aerospace and Consumer Products & Machinery

Growth businesses: Rolling Stock and Gas Turbine & Machinery

Businesses to be reorganized: Shipbuilding, Plant Engineering, and Steel Structure

(2) Business model overhaul (measures to improve profitability)

- (i) Shift from being order-driven to solutions-driven: Increase added value through repeated production
- (ii) Shift to a business model that delivers customer satisfaction over the entire life of a product



President Kamei and Senior Managing Director Tazaki at a press conference



Message from the new president, Masamoto Tazaki, in the company newsletter

[Table I] Quantitative Targets under K21 Medium-Term Business Plan (FY2004)

		Consolidated basis	
		FY2000	
Before-tax ROIC		9% or more	
After-tax ROIC		5% or more	
Interest-bearing debt		420 billion yen	500 billion yen
For reference	Net sales	1.25 trillion yen	1.08 trillion yen
	Recurring profit	50 billion yen	-18 billion yen
	Domestic workforce	22,000 people	24,000 people
		Non-consolidated basis	
		FY2000	
Before-tax ROIC		9% or more	
After-tax ROIC		5% or more	
Interest-bearing debt		320 billion yen	400 billion yen
For reference	Net sales	1 trillion yen	870 billion yen
	Recurring profit	40 billion yen	-18 billion yen
	Domestic workforce	13,000 people	14,900 people

*ROIC: Return on invested capital (earnings before interest expense divided by invested capital).
An after-tax ROIC of 5% corresponds to a pre-tax ROIC of 9%.



The K21 medium-term business plan explained in the company newsletter

- (iii) Invest management resources across the organization
- (iv) Strengthen product and service differentiation strategies
- (3) Change in management style
 - (i) Shift to an internal company system
 - (ii) Introduce an executive officer system
 - (iii) Restructure the headquarters organization
- (4) Reform of the corporate culture
 - (i) Increase employees' sense of participation in company management by reflecting company performance in their compensation
 - (ii) Develop education and personnel programs that instill the motivation needed to be innovative and take on new challenges
 - (iii) Establish a personnel transfer and compensation system in order to swiftly promote spin-offs and alliances with other companies
 - (iv) Develop human resources capable of responding to changes through active rotations involving affiliated companies

3) Introduction of Internal Company and Executive Officer Systems

Internal Company System

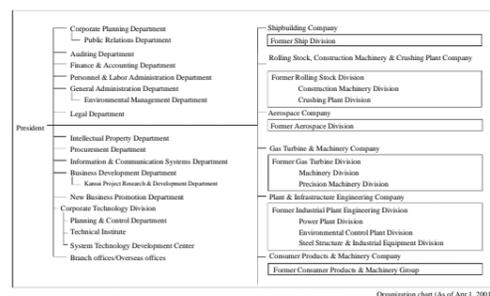
In April 2001, Kawasaki introduced the internal company system, taking the previous business division and group system to new heights. The new system would enable each internal company to make its own decisions via delegated authorities and responsibilities and conduct its business operations with greater agility than ever, including business alliances and M&As with other companies. Based on the previous business group structure, the 13 business divisions were reorganized into six companies, i.e., the Shipbuilding Company, Rolling Stock, Construction Machinery & Crushing Plant Company, Aerospace Company, Gas Turbine & Machinery Company, Plant & Infrastructure Engineering Company, and Consumer Products & Machinery Company.

Each internal company set up its own management committee headed by a company president to operate its business. Business centers (BCs) were also established when it was necessary to create independent business segments for certain markets, products, etc.

The Technology Group, which served as the research and development department for the entire company, transferred specific R&D functions to relevant internal companies where appropriate. It integrated laboratories to enhance its capabilities to more efficiently develop basic technologies that could be used in common, as well as new products and technologies.

Executive Officer System

Kawasaki introduced an executive officer system in April 2001 to effectively conduct the diverse range of businesses it operated in different markets.



Organization chart (As of Apr. 1, 2001)

The new system was designed to enable professionals in respective areas of business to make the optimal decisions and execute business operations promptly. At the same time, the number of directors was reduced from 26 to 11 to invigorate discussions at the Board of Directors meetings, speed up strategic decision-making on matters discussed by the board, and enhance management oversight.

4) Strengthening Financial Health

Raising Funds through Capital Increases at Market Value and the Issuance of Convertible Bonds

Despite everything it did to boost profitability, all Kawasaki had to show for its efforts was a low equity ratio of 12% at the end of fiscal 1995 and a need to increase shareholders' equity as well as improve the equity ratio. In July 1996, the company issued 30 million shares (worth approximately 15 billion yen) at market value overseas and 40 billion yen in convertible bonds (CB) domestically. Since the company had been conducting annual investor relations activities in Europe and the U.S. since the beginning of the 1990s, it took advantage of these activities to sell shares to overseas institutional investors. This was the first step the company took toward raising funds with a view to global capital markets as it was expanding its operations across the world. The successful completion of the capital increase also reaffirmed the importance of overseas investor relations. The 15 billion yen raised through new shares issued at market value were immediately capitalized, contributing to the expansion of shareholders' equity.

Issuance of Euro-yen Convertible Bonds with Stock Acquisition Rights

As the company sought to further strengthen its financial position, a major challenge was to meet its funding needs without increasing interest-bearing debt. Accordingly, the company decided to issue euro-yen convertible bonds in light of the overall benefits. They would enable the company to enhance its equity ratio at an early stage while securing immediate funds. On top of that the favorable market environment would allow the company to issue the bonds under favorable terms. Specifically, the company issued euro-yen denominated convertible bonds worth a total of 25 billion yen on December 8, 2003, and again on September 21, 2004 for a total worth 22 billion yen. As the company progressed with restructuring, its stock price rose, and that was converted into equity, which greatly helped strengthen its financial position.

5) Reforming Every Business Division with an Eye to Spinning Them Off into Independent Entities

Following the introduction of the internal company and executive officer systems, Kawasaki moved into the second phase of its management style reform as it worked to restructure its business with a view to spinning off all of its business divisions and forming alliances with other companies.



Shipbuilding cranes at Kawasaki Shipbuilding

Establishing Kawasaki Shipbuilding Corporation

Kawasaki spun off its ship division and established Kawasaki Shipbuilding Corporation as a wholly owned subsidiary on October 1, 2002.

The company's shipbuilding division was expected to easily stay well afloat for the foreseeable future as it focused on meeting the mounting demand for submarines and gas carriers. On the other hand, competition in the overcrowded global construction market was growing more intense in an ever rocky business environment where financial performance was susceptible to exchange rate fluctuations. Working to establish a lasting stable profit structure that could weather any storm, Kawasaki decided to spin off its shipbuilding operations into an independent entity. The move would enable Kawasaki to transform itself into a company that could flexibly respond to changes in the business environment and conduct business operations in an agile and efficient manner.

The new company would concentrate more of its resources on high value-added products, with a focus on its submarine, LNG and LPG carrier technologies that customers were clamoring for. At the same time it was implementing various cost reduction measures in order to create the kind of lean structure that could outpace the competition and adapt to changes in the business environment.

Kawasaki's shipbuilding business, the anchor upon which the company was founded more than 100 years before, was readying to launch itself into the 21st century with a big splash.

<Outline of the new company>

Name: Kawasaki Shipbuilding Corporation

Head Office: Chuo Ward, Kobe City

Capital: 10 billion yen

Operations: Design, manufacture, sale, and repair of ships, naval vessels, marine equipment, and other transportation equipment, as well as other related businesses

Establishing Kawasaki Precision Machinery, Ltd.

Kawasaki spun off its precision machinery division at the same time it spun off the ship division. The division, which had grown significantly with the addition of mechanical and electrical products as well as control systems to its core lineup of hydraulic equipment and devices, had put the Kawasaki hydraulics brand squarely on the map. Unfortunately the domestic hydraulics market had been shrinking since fiscal 1998, with no significant recovery in sight.

In order to ensure that the precision machinery division would survive and grow steadily in this business environment, it was necessary to bolster the foundation of the division's operations, including services, and make it a more agile organization. That's why Kawasaki went ahead and spun off the division.

The new company merged with Kawasaki Hydraulic Co., Ltd., a Kawasaki subsidiary engaged in servicing hydraulic products, with the aim of strengthening and expanding its highly profitable service business while rebuilding an integrated business structure for hydraulic products and services. It focused on further differentiating itself with highly functional, high-performance products, as it took aim at becoming the world leader in hydraulic components.



Message from the Kawasaki Shipbuilding president in the company newsletter



Message from the Kawasaki Precision Machinery president in the company newsletter

The launch of Kawasaki Precision Machinery, Ltd. on October 1, 2002 marked the first step to firmly establishing itself as a top global company.

<Outline of the new company>

Name: Kawasaki Precision Machinery, Ltd.

Head Office: Nishi Ward, Kobe City

Capital: 3 billion yen

Operations: Design, manufacture, sale, after-sales service, and maintenance of hydraulic components and devices, electrical equipment, and control systems

Establishing Kawasaki Plant Systems, Ltd.

The performance of the plant business, which had been one of Kawasaki's core businesses since the 1960s, had been lackluster since the latter half of the 1990s due to fierce price competition within Japan and overseas.

It was against this backdrop that the company decided to spin off the business. Moving ahead with an eye to develop operations centered on stand-alone equipment and plants, Kawasaki established a wholly owned subsidiary, Kawasaki Plant Systems, Ltd. on April 1, 2005. The new subsidiary would provide valuable products at reasonable prices in the fields of energy, social infrastructure, and environmental conservation to establish a unique position in the domestic and international plant industry.

<Outline of the new company>

Name: Kawasaki Plant Systems, Ltd.

Location: Chuo Ward, Kobe City

Capital: 5 billion yen

Operations: Design, manufacture, installation, repair and sale of various plants

Establishing Kawasaki Environmental Engineering, Ltd.

Kawasaki had expanded its environmental business by actively developing technologies for facilities and equipment related to the treatment and recycling of municipal and industrial waste. In the 2000s, however, the company faced tough times as orders fell off and the competition slashed prices.

On the other hand, demand for waste treatment and water treatment facilities that are so vital to public health was expected to remain stable over the medium-to-long-term as communities looked to revitalize their aging infrastructure.

Therefore, the company decided to aim for further growth and development through the spin-off of its environmental business, and on October 1, 2006, it established Kawasaki Environmental Engineering, Ltd. as a wholly owned subsidiary.



Message from the Kawasaki Plant Systems president in the company newsletter



Message from the Kawasaki Environmental Engineering president in the company newsletter

<Outline of the new company>

Name: Kawasaki Environmental Engineering, Ltd.
 Head Office: Chuo Ward, Kobe City
 Capital: 3.5 billion yen
 Operations: Design, manufacture, sale, and repair of municipal waste incineration plants, industrial waste treatment plants, resource recycling facilities, water treatment facilities, etc.

Subsequently, Kawasaki formulated a medium-term business plan, Global K (FY2006–2010), laying out a policy to develop the energy and environmental engineering business into a new pillar of group operations. On April 1, 2007, Kawasaki Plant Systems was merged with Kawasaki Environmental Engineering since both of these spin-off companies were operating businesses that could be core energy and environmental engineering businesses, and the surviving entity, Kawasaki Environmental Engineering, was renamed Kawasaki Plant Systems.

The newly launched Kawasaki Plant Systems (capitalized at 8.5 billion yen) aimed to become a top engineering company in the fields of energy and global environmental conservation.

Establishing EarthTechnica Co., Ltd.

Kawasaki's crushing equipment business had been seeing its primary market, the domestic construction aggregate market, continue to shrink due to a decrease in public works projects, with little prospect for a recovery. In light of market conditions, the company formed an alliance with Kobe Steel, Ltd., a leading company in the industry, and established EarthTechnica Co., Ltd. on April 1, 2003 to engage in the design and sales of crushing equipment.

Parallel to the commencement of EarthTechnica's operations in July of the same year, the two companies looked into fully integrating manufacturing and sales functions and decided to transfer their crushing equipment manufacturing divisions to EarthTechnica on April 1, 2005.

The new EarthTechnica, a 50-50 venture between Kawasaki and Kobe Steel, hit the ground running as the industry's largest integrated crusher sales and manufacturing company.

<Outline of the new company>

Name: EarthTechnica Co., Ltd.
 Head Office: Chuo Ward, Tokyo
 Capital: 1.2 billion yen
 Operations: Design, manufacture, and sale of crushers, grinding mills, separators, waste recycling equipment, and wear and heat-resistant cast parts for crushers



The signing ceremony for the establishment of EarthTechnica



EarthTechnica

Consolidation and Reorganization of Affiliates

Kawasaki reviewed the functions of affiliated companies and worked on improving efficiency through reorganization, mergers, and business alliances in order to strengthen the business structure and cost competitiveness of its corporate group as a whole. Major reorganizations and consolidations carried out between fiscal 2000 and fiscal 2004 were as follows.

- **Establishment of Kawasaki Machine Systems, Ltd.**

Kawasaki Machine Systems, Naka-Nihon Ltd., Kawasaki Machine Systems, Nishi-Nihon Ltd., Kanto Kawasaki Construction Machinery Co., Ltd., and Tohoku Kawasaki Construction Machinery Co., Ltd., which were sales companies related to construction machinery operating across Japan, were all merged into one. At the same time, Kawasaki's sales division for general-purpose gas turbines was transferred to the newly merged entity that, on July 1, 2000, would become Kawasaki Machine Systems, Ltd., specializing in the sales and servicing of construction machinery and general-purpose gas turbines.

On April 1, 2001, the new company incorporated Kawasaki's domestic robot sales division, and absorbed Kawasaki Robotics Co., Ltd., which provided after-sales services for robots in Japan, as well as Kawasaki Turbine Technos Co., Ltd., which provided after-sales services for general-purpose gas turbines in Japan. As a result, Kawasaki Machine Systems became the sales company for Kawasaki's general-purpose products offering a wide range of services, including system engineering solutions, user training, and after-sales services.

<Outline of the new company (as of April 1, 2001)>

Name: Kawasaki Machine Systems, Ltd.
 Head Office: Kita Ward, Osaka City
 Capital: 343.8 million yen
 Operations: Sale of construction equipment, general-purpose gas turbines, robots, and related products, systems, and parts, as well as after-sales services, on-site construction, and other related operations

- **Reorganization of the Steel Structure & Industrial Equipment Division's affiliates**

On October 1, 2000, Kawasaki merged the three companies, Kawasaki Construction Co., Ltd., Kawasaki Bridge Maintenance Co., Ltd., and Kawasaki Construction Equipment Co., Ltd., into Kawasaki Construction. Having added bridge repair and maintenance as well as on-site equipment management functions to its Steel Structure & Industrial Equipment Division's on-site construction work business, Kawasaki Construction was now able to handle everything from engineering to construction for various building projects.

At the same time, Kawaju Harima Tech Inc., Kawaju Noda Tech Inc., Toban Business Center Co., Ltd., and Tokatsu Business Center Co., Ltd. were integrated into Kawaju Harima Tech Inc., which was then renamed Kawaju Equipment Tech, Co., Ltd. (Harima-cho, Kako-gun, Hyogo Prefecture).



Kawasaki Machine Systems

Kawaju Equipment Tech was now equipped with the capability to provide advanced technology and customized services in a wide range of areas, including maintenance of cargo handling machinery, sluice gates, and movable structures; design, fabrication, and installation of factory machinery and equipment; painting and transportation work for steel structures; and various services such as design contracting, copying services, as well as sales and leasing of office equipment. As a result of these reorganizations and consolidations, the Steel Structure & Industrial Equipment Division along with its affiliated companies as a whole reinforced their business foundations and expanded operations with the capability to handle everything from engineering to maintenance for a wide range of products.

- **Comprehensive business alliance and capital tie-up between Kawasaki Safety Service Industries, Ltd. and Air Water Inc.**

In July 2003, Kawasaki Safety Service Industries, Ltd. (KSSI), and its parent company, Kawasaki Heavy Industries, reached a basic agreement with Air Water Inc. to bolster their partnership with an eye to expanding their healthcare-related businesses. KSSI possessed a wealth of experience in medical equipment, such as medical gas systems as well as breathing apparatuses used in firefighting and lifesaving activities, while Air Water had long been engaged in medical equipment sales and medical services with a focus on supplying medical and other gases.

On October 1 of the same year, Kawasaki transferred 33% of its shares in KSSI to Air Water, after which KSSI and Air Water inked a comprehensive business alliance agreement. In August 2006, KSSI was renamed Air Water Safety Service Inc., and in August 2007, all KSSI shares were transferred to Air Water, making it a wholly owned subsidiary of Air Water.

- **Establishment of Kawasaki Life Corporation**

Kawasaki Life Corporation was established on April 1, 2004 through an integration and reorganization of three companies engaged in services related to asset management and employee welfare for the Kawasaki Group, including Kawaju Real Estate Co., Ltd. (specializing in asset management, real estate sales, and brokering), Kawasaki Kosan Co., Ltd. (specializing in insurance sales, leasing, and real estate management), and Kawaju Tomakomai Kanko Kaihatsu Co., Ltd. (specializing in golf course management).

<Outline of the new company>

Name: Kawasaki Life Corporation

Head Office: Chuo Ward, Kobe City

Capital: 400 million yen

Operations: Real estate sales, purchases, leasing, management and operation, lot sales and development, contracting of civil engineering and construction work, design and supervision of construction work, insurance agency business, general leasing business, etc.



Kawasaki Life Corporation

- **Establishment of Benic Solution Corporation**

With the rapid development of information technology, the role of the information systems department and the nature of its operations changed dramatically. In response to this change, Kawasaki looked for the smartest way to handle its information systems in the 21st century. At the end of the day it decided it would be best to set apart the division responsible for building and operating information systems for the company and group as well as the division that sold technologies and know-how cultivated in those operations. In January 1999, the separated divisions were merged to form the Information Systems Division at Kawaju Techno Service Corporation.

After carefully looking into the feasibility of turning the division into a business, Kawasaki finally decided to make it an independent company, and on February 9, 2001, established Benic Solution Corporation, which opened its doors for business on April 1.

<Outline of the new company>

Name: Benic Solution Corporation

Head Office: Akashi City, Hyogo Prefecture

Capital: 50 million yen

Operations: • Construction, operation, and maintenance of Information processing systems and information communication network systems
• Software and hardware sales
• IT solutions



Benic Solution

6) Selection and Concentration of Production Divisions

Chiba and Noda Works Consolidated into Harima Works

Kawasaki's Steel Structure & Industrial Equipment Division had been hard at work building bridges and floodgates for public works projects, LNG tanks and penstocks for public utilities such as electric power and gas companies, and building structures (mainly steel frames) for the private sector. However, a prolonged economic slump and changing societal needs after the collapse of the bubble economy had created a stark business environment. Price competition among manufacturers in the boiler business across the globe was also heating up.

In order to keep its steel structure and boiler businesses from going under in this harsh business environment, Kawasaki would have to reorganize its production divisions in Harima, Noda, Sodegaura, and Chiba so it could improve its operational foundation and get performance back on track.

The company eventually moved forward with the relocation and consolidation of its factories, integrated the Chiba Works' boiler division into the Harima Works, and transferred the Sodegaura Works' bridge product manufacturing operations to the Noda Works. It also relocated the Noda Works' production lines for pipes, tanks, and equipment to the Harima Works.



Noda Works



Sodegaura Works



Chiba Works



Yachiyo Works



Delhi Office (2007)



Moscow Office (2011)



Kawasaki Heavy Industries (Singapore) Pte. Ltd. (2013)

In fiscal 2000, the four plants in Harima, Noda, Chiba, and Sodegaura were consolidated into two, the Harima and Noda Works. The following fiscal year, production management at the Harima and Noda Works was centralized, but since capacity utilization at the Noda Works had declined significantly, its operations were folded into the Harima Works. The Noda Works was closed in the final days of September 2003 after its production lines were shut down at the end of March, leaving Kawasaki with only the Harima Works.

Closure of the Yachiyo Works and Opening of the Kakogawa Works

Kawasaki's Yachiyo Works, which had been responsible for the manufacture of crushers, grinding mills, environment-related equipment, etc., became the production base for EarthTechnica when the company was established in 2003. As a result, Kawasaki ceased its operations at the Yachiyo Works on March 31, 2005.

In April of the following year the company opened the Kakogawa Works. Serving as a factory for the Consumer Products & Machinery Company, which had transferred part of its production operations to the former Kakogawa rolling stock plant in 1989, the new facility started manufacturing crankcase materials for V-engines using its first-ever newly installed 1,650 ton die casting machine.

7) Establishing Overseas Representative Offices

As the market was becoming more and more globalized, Kawasaki started setting up overseas representative offices. Following the restructuring of overseas operations, involving the opening two new offices and consolidation of four locations, the company moved to a new organizational structure in January 2007.

The two new offices included one in Delhi, India that was opened in January and another in Moscow, Russia, that opened in March. In the Southeast Asian market, where Kawasaki's operating divisions had already secured a foothold, the functions of the local offices in Bangkok, Kuala Lumpur, and Jakarta were transferred and consolidated into Kawasaki Heavy Industries (Singapore) Pte. Ltd., the local subsidiary in Singapore. In China, the Shanghai Office was reorganized as a locally incorporated company, Kawasaki Heavy Industries Consulting & Service (Shanghai) Company, Ltd. (capitalized at US\$250,000, and wholly owned by Kawasaki), in January 2007, to provide services and assistance to Kawasaki's group companies operating in China.

This shuffle was designed to strengthen the trailblazing role overseas offices were playing in new markets. Kawasaki also aimed to build on its regional bases as well as enhance the functions and efficiency of its overseas operations by dividing the global market into the four strategic blocks of America, Europe, China, and Asia.

In Russia and India, two BRIC countries that were enjoying remarkable economic growth, the two new offices worked on conducting market research, cultivating business opportunities, collecting project information, and assisting business travelers.

After restructuring its overseas operations, Kawasaki now had four overseas offices and eight local subsidiary locations from where it could cultivate overseas markets and boost its brand power. It was perfectly poised to enhance management efficiency and achieve its corporate vision of "Global Kawasaki."

8) Implementing a Brand Strategy

Kawasaki overhauled its visual identity (VI) in September 2001, employing visual elements that enabled it to communicate its corporate image more accurately and effectively, and take its brand power to new heights. Since the need for digital data has grown with the digitization of design and printing of catalogs as well as other materials, the company also introduced a new brand name, brand logo, revised logotype for the company name and trademark. Aligned with the corporate VI, the elements were more distinct and easier to use than ever before.



Visual identity (new brand logo)

9) The "Big Bang" in Accounting

As corporate globalization accelerated, more and more companies adopted internationally accepted accounting standards. Beginning in 1999, new standards were sequentially established in Japan for consolidated accounting, tax effect accounting, financial instruments accounting, retirement benefit accounting, and business combination accounting.

Since Kawasaki had long been focusing on investor relations (IR) activities overseas and had lots of opportunities to hear what was on its investors' minds, it had already taken proactive steps, such as opting for consolidated business management, ahead of the internationalization of accounting standards. In fiscal 1998, the company implemented interim consolidated accounting and introduced tax-effect accounting. In the following fiscal year, the company included all subsidiaries in the scope of consolidation, laying the groundwork for full-fledged consolidated business management.

In the 2000s, the entire Kawasaki Group streamlined its management and was ready to become a corporate group that would be highly regarded in capital markets in light of the new accounting standards.

3.

Cultivating New Growth in the 21st Century

1) Formulating the K21 Medium-Term Business Plan

The K21 medium-term business plan formulated in 2000 laid out a plan for boosting the marginal profit rate by cutting fixed costs and transforming business models based on the basic policies of “quality followed by quantity” and “selectivity and concentration.” In particular, Kawasaki positioned the Shipbuilding and Plant & Infrastructure Engineering as businesses requiring structural reforms, since their markets had matured in Japan and did not expect to see an improvement in the supply-demand balance anytime soon. Kawasaki planned various reforms, including spin-offs, alliances, and consolidation of factories, and completed most of them. During this time, the company worked on reducing interest-bearing debt and strengthened its financial position. However, a combination of significant changes in the business environment, including a prolonged economic slowdown in Japan and a slump in aviation demand triggered by the terrorist attacks in the U.S., as well as deferrals of large-scale rolling stock and other projects, caused a two-year delay in achieving the ROIC target. Kawasaki then decided to make fiscal 2005 the final year for the K21 and formulate a new medium-term business plan in light of the current operating environment.

2) Inauguration of Tadaharu Ohashi as President

In June 2005 Kawasaki president, Masamoto Tazaki, became the chairman, and Tadaharu Ohashi, the senior executive vice president, became the president. Ohashi had built his career in the rolling stock business and had abundant overseas experience. Tazaki noted that one of the reasons for handing over the reins to Ohashi was that, as a leader who could compete with the world's most powerful companies, he had a wealth of overseas experience, resilience to adversity, and the ability to adapt to changes in the environment.

In order to complete the series of structural reforms implemented by Tazaki, Ohashi aimed to make Kawasaki a powerful earning engine while building trust for the Kawasaki brand. He also made the company's basic management policies about boosting earning power by focusing more than ever on the profitability of businesses and products; giving priority to compliance in all aspects over everything else; and contributing to solving global environmental problems with Kawasaki's advanced technology and superior products. He called on employees to start working together to create a "Global Kawasaki" that would survive and steadily grow in the 21st century, an era where there was full-fledged international division of labor free from economic borders.

3) Strengthening Compliance Management

Kawasaki, along with four other companies, was subjected to an on-site inspection in 1998 in connection with a bid for the construction of a municipal waste incinerator.



President Ohashi (right) is named the new president



Message from President Ohashi in the company newsletter

As a result, in 1999, the Japan Fair Trade Commission (JFTC) issued a cease-and-desist order under the Japanese competition law. While the five companies appealed to the Supreme Court, it decided against them and upheld the JFTC ruling in 2009.

In fiscal 2005, a number of companies in the industry, including Kawasaki, were brought up on charges of violating the competition law in connection with steel bridge construction contracts and were penalized by the JFTC. In fiscal 2006, the JFTC ordered Kawasaki to pay a surcharge for violating the competition law in connection with tunnel ventilation and sluice gate construction.

The company pledged to make group-wide efforts to prevent any such occurrence from ever happening again and placed an even greater emphasis on compliance throughout its operations. In fact, the company made ensuring thorough compliance a bedrock corporate policy. It did everything possible to ensure no employee would ever commit an illegal act again, recognizing that such illicit actions could jeopardize the very existence of the company itself. In addition to that, the company started holding regular meetings of its Corporate Ethics Committee, chaired by the president, and set up the Compliance Committee under the Corporate Ethics Committee.

Compliance committees were also established at internal companies and major subsidiaries to build an organizational structure needed to support the implementation of systematic internal control and compliance measures across the Kawasaki Group.

The company implemented a Compliance Reporting and Consultation System (a whistle-blower system) in June 2003 that is still in place and provides all employees with a copy of its Compliance Guidebook.

Since 2006, the Board of Directors has passed a resolution every year, at its annual meeting held immediately after the ordinary general meeting of shareholders, stating that Kawasaki would steadfastly comply with competition laws and strive to build on the company's enterprise value and worth to society.

4) Formulation of the Global K Medium-Term Business Plan

Following the K21 medium-term business plan, Kawasaki formulated Global K “Global Kawasaki”—The Next Exciting Stage (FY2006–2010). This was a business plan beginning in fiscal 2006 that would guide the company during the first five years of working toward the Kawasaki Group's ten-year vision. Building on the structural reforms and business stabilization measures implemented under K21, Kawasaki aimed to take the company to new heights with an eye to achieving its corporate vision for the coming decade. The outline of Global K is as follows.

[Corporate Vision]

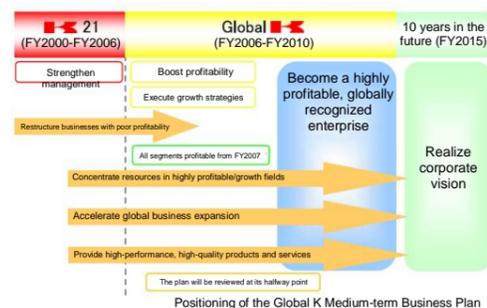
Enriching lifestyles and helping safeguard the environment: Global Kawasaki



Compliance Guidebook



Explanation of the Global K medium-term business plan in the company newsletter



Kawasaki aims to become a leading global enterprise that enriches lifestyles and helps safeguard the environment through its core businesses, which encompass land, sea and air transportation systems, and the energy and environmental engineering sectors.

[Basic Objectives]

The company should leap forward to become a highly profitable, globally recognized enterprise during the period of the Global K plan by implementing the principal management policies of “Quality Followed by Quantity,” selectivity and concentration, and stronger non-price competitiveness.

[Gist of the Plan]

- (1) What Each Business Should be 10 Years in the Future: Work toward achieving the ten-year vision for business segments including Rolling Stock, Aerospace, Gas Turbines & Machinery, Consumer Products & Machinery, Energy & Environmental Engineering, Industrial Robots, Shipbuilding, and Industrial Hydraulic Products.
- (2) Selectivity and Concentration: Positioning of the Businesses
 Four Core Businesses: Rolling Stock, Aerospace, Gas Turbines & Machinery, and Consumer Products & Machinery
 Developing Business: Energy & Environmental Engineering
 Self-sufficient Businesses: Industrial Robots, Shipbuilding, and Industrial Hydraulic Products

[Priority Initiatives]

- (i) Strengthen technological capabilities
- (ii) Encourage market-oriented thinking and action
- (iii) Accelerate global business development
- (iv) Create and cultivate new products and businesses
- (v) Strengthen Group management capabilities
- (vi) Promote CSR

When kicking off Global K, Ohashi asserted the new medium-term business plan, which picked up where the K21 medium-term business plan launched in fiscal 2000 left off, would take the entire Group to “the Next Exciting Stage.” He assured everyone that Kawasaki was “determined to put all its might and energy into aggressively moving forward to achieve its goals.”

5) Ten Years after the Great Hanshin-Awaji Earthquake

Strengthening the Group's Crisis Management System

The Great Hanshin-Awaji Earthquake that occurred in the early hours of January 17, 1995 took many lives, paralyzed urban functions, and caused unprecedented damage. In the wake of the disaster, every Kawasaki plant drafted guidelines on what to do in the event of a major earthquake or other disasters. The guidelines cover everything from stockpiling emergency supplies to working with local governments and neighborhood associations on various projects, so that Kawasaki plants can play a positive role in the local communities they are a part of.

[Quantitative Targets] (Fiscal 2010, on a consolidated basis)

Net sales	1.56 trillion yen
Operating income	100 billion yen
Recurring profit	90 billion yen
Before-tax ROIC	14%
Ratio of recurring profit to sales	5.8%

In 2004, the Kawasaki Group introduced an emergency safety confirmation system dubbed the K-Emergency Communication System. The system allows employees and their families in disaster-stricken areas to voluntarily report on their safety status using a personal computer, mobile phone, public phone, etc. in the event of a large-scale disaster. It will not only help confirm their safety but also facilitate rescue operations and business recovery.

The Kawasaki Group is strengthening its crisis management system to ensure the safety of employees and their families in the event of natural disasters and terrorist attacks not only in Japan but also overseas.

Aiding Victims and Areas Hit by Natural Disasters

The Kawasaki Group has been actively providing assistance to areas and people affected by large-scale natural disasters that frequently occur in Japan and overseas, including the donation of funds and Kawasaki products to help recovery efforts (see Table II).



K-Emergency Communication System safety confirmation app

[Table II] Aid to Victims and Areas Hit by Natural Disasters

	Month/year decision to provide assistance was made	Disasters and affected areas	Assistance provided
Overseas	February 2004	Bam earthquake (Iran)	Donated 80 portable generators
	January 2005	2004 Indian Ocean earthquake and tsunami	Donated a total of approximately ¥20 million
	September 2005	Hurricane Katrina (USA)	Donated US\$200,000 and Kawasaki multi-purpose vehicles (equivalent to US\$100,000)
	May 2006	2006 Yogyakarta earthquake (Indonesia)	Donated ¥10 million and 20 motorcycles (mopeds)
	May 2008	Cyclone Nargis (Myanmar)	Donated ¥5 million
	May 2008	2008 Sichuan earthquake (China)	Donated ¥20 million
	January 2010	2010 Haiti earthquake	Donated US\$50,000
	October 2011	2011 Thailand floods	Donated money and Kawasaki multipurpose vehicles totaling ¥30 million
	November 2013	Typhoon Haiyan (Philippines)	Donated ¥10 million and 20 Kawasaki motorcycles (equivalent to ¥3.8 million)
	April 2015	2015 Nepal earthquake	Donated an equivalent of ¥10 million
Japan	September 2017	Hurricanes Harvey and Irma (USA)	Donated US\$100,000 and 10 Kawasaki multipurpose vehicles, plus donations from local subsidiaries and employees
	November 2004	Niigata Chuetsu earthquake	Donated ¥10 million and a piece of Kawasaki construction machinery (equivalent to ¥22 million in total) to Niigata Prefecture
	November 2004	Typhoon Tokage 2004 (disaster victim assistance and reconstruction)	Donated ¥5 million to Hyogo Prefecture
	March 2011	Great East Japan Earthquake	*Detailed in Chapter 2, Section 2-5
	August 2014	Heavy rain in northern Hiroshima City	Donated an equivalent of ¥10 million
	April 2016	Kumamoto earthquake	Donated ¥10 million
	August 2017	2017 Northern Kyushu torrential rainfall	Donated ¥2 million
	July 2018	Torrential rainfall in July 2018	Donated ¥10 million

6) Contributing to Local Communities

Corporate Museum, Kawasaki Good Times World, Opens

On May 17, 2006, Kawasaki opened the Kawasaki Good Times World in the Kobe Maritime Museum (Chuo Ward, Kobe City). This interactive museum allows visitors to experience the wonders of technology and the importance of craftsmanship while interacting with Kawasaki products in fun and informative ways.

The museum is divided into the History Area, outlining the history of the Kawasaki Group; the Motorcycle Gallery showcasing lines of Kawasaki motorbikes, both old and new; the Sea Zone, where visitors can watch how ships are built and launched at the Kobe Works on a triple-screen audiovisual system; the Land Zone, featuring an actual Shinkansen cab; and the Air Zone, where an actual model of a large twin-engine helicopter that can hold up to 27 people is displayed. Also on display are Kawasaki's high-performance small industrial robots that are widely used in factories. These continue to be a magnet of attraction for kids.

In October 2015, nine years after its opening, the museum welcomed its two millionth visitor and presented them with a certificate of recognition, a bouquet of flowers, and memorabilia to mark the occasion. The total number of visitors reached three million in September 2020.

The Kawasaki Good Times World changes exhibits from time to time and underwent a major overhaul in 2016 and 2018.

Promoting Strategic Industry-University Collaboration

On October 23, 2006, Kawasaki and Kobe University signed an agreement on industrial-academic cooperation.

Under the agreement, the two parties were to build a strategic industry-academia partnership leveraging each other's wealth of research and technological expertise in pursuit of mutually beneficial ends. It was based on a shared philosophy of contributing to society by creating new value and business opportunities through Kobe University's knowledge and Kawasaki's manufacturing.

The partnership would enable Kobe University to further its basic research and enhance the education of students, through internships and more. It would allow Kawasaki to complement and reinforce a wide range of technologies and knowledge, strengthen its core technologies and basic technological capabilities necessary for new product development, and promote the development of new technologies and businesses in the areas of energy and the environment.

Through these activities, Kobe University and Kawasaki aimed to reinforce priority areas, strengthen basic and elemental technology capabilities, explore new business areas to accelerate and streamline research and development, and create new value and businesses, with an eye to making the world a better place.



PR magazine announcing the opening of Kawasaki Good Times World



Kawasaki Good Times World opening ceremony

7) Structural Reform of the Personnel System

As part of the structural reforms aimed at achieving the goals set in the K21 medium-term business plan (FY2000–2006), Kawasaki initiated a drastic overhaul of its personnel system in fiscal 2002.

Introduction of Term-end Allowance Linked to the Performance of Internal Companies

Moving in line with the introduction of the internal company system, Kawasaki introduced a performance linked system in fiscal 2003 that based year-end bonuses on how well each internal company performed financially. The company designed this system to be the driving force that would propel performance at internal companies. Kawasaki believed it would foster a sense of ownership as well as a sense of unity among employees at each internal company, all with an aim of firmly establishing the internal company system and strengthening the entire business foundation.

New Executive Compensation Plan

In fiscal 2002, Kawasaki introduced a new executive compensation plan. It introduced an annual salary, abolished automatic pay increases (the regular pay raise), and implemented a system linking internal company performance to year-end bonus amounts while adding greater weight to individual performance when determining bonuses. Under the new plan, the annual income of individual executives was determined on the basis of their ability and performance.

This revision to the executive compensation plan was a precursor to the structural reform of the personnel system (TAR-GET), which is outlined below.

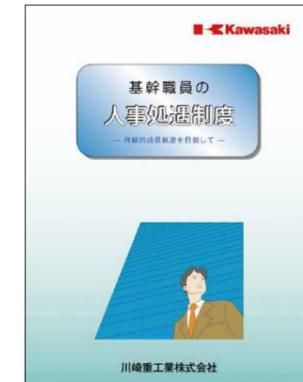
Implementation of Seven TAR-GET Initiatives

Moving forward with the reform of the personnel system, which had been ongoing since fiscal 2000, Kawasaki implemented the second phase of the structural reform dubbed TAR-GET. It was an acronym for "Total and Aggressive Reformation for Gaining Excellent Tomorrow," which meant making drastic and ambitious changes that would pave the way to a bright new future. In order to overcome the hurdles facing the company, it was necessary to comprehensively and aggressively change the personnel system, with a focus on performance, actual costs, and self-help efforts.

Seven initiatives were implemented under TAR-GET starting in April 2004 (see Table III).

Extension of the Retirement Age (for General Employees) and Introduction of the Re-employment System

In the early 2000s, Kawasaki was saddled with a major labor challenge as a large number of skilled workers reached retirement age.



Pamphlet on the new executive compensation plan

Moreover, since Kawasaki was expecting a steady flow of large orders, it became a company-wide challenge to fulfill them without a hitch. The real trick was using a skilled labor force to maintain and improve quality while seamlessly passing on the technology and skills it possessed to the next generation that would take the torch and bear it into the future. In a greying Japanese society, the prolonged pension gap resulting from the reform of the public pension system had also become a major social problem.

Anticipating the social problems looming on the horizon, Kawasaki revised its mandatory retirement age with an eye to ensuring job security. Stabilizing employment was one of the principles of TARGET, which would relieve employees' concerns about retirement and revitalize the workplace. Under the new system, the mandatory retirement age for general employees was gradually raised from 61 to 63 between fiscal 2005 and 2007. In fiscal 2006, the company made it possible for general employees and executives who reached the mandatory retirement age to be rehired and continue working until they reached the age of 65.

Subsequently, due to the need to secure and utilize an even older workforce, the retirement age for general employees and partners was raised to 65 in fiscal 2019.

8) Environmental Management for Sustainability

Promoting Environmental Management for Sustainability

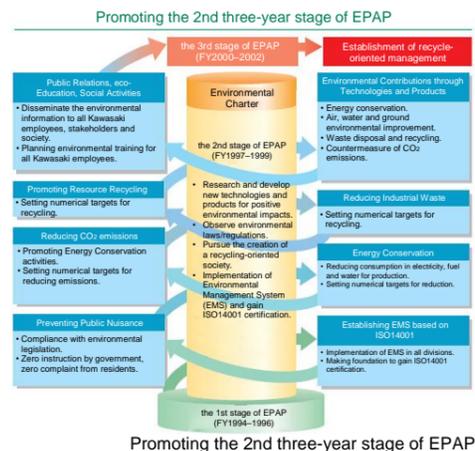
In the first stage of the Environmental Protection Activities Plan (EPAP), which started in fiscal 1994, Kawasaki invested in equipment to prevent pollution and concentrated on the purification of factory exhaust and wastewater. In the second stage (FY1997–1999), the company tackled various environmental issues such as energy and resource conservation as well as waste reduction, with the aim of building an ISO 14001-based environmental management system. In the third stage (FY2000–2002), efforts were made to enhance information disclosure by introducing green procurement, life cycle assessment (LCA), product assessment (environmentally conscious design), and environmental accounting.

Since many Kawasaki products are energy-intensive, the company focused on saving energy and resources as well as recycling, not only at the manufacturing stage but also at the operation and disposal stages of these products. This was done in order to contribute to achieving a recycling-based sustainable society.

In 2003, the company formulated its Environmental Vision 2010: "What Kawasaki Should Be in the Year 2010," to step up efforts on environmental management.

Employing Green Manufacturing Technologies

In February 2005, the Kyoto Protocol, mandating that developed countries cut carbon dioxide (CO₂) and other greenhouse gas emissions, went into effect.



Japan adopted the Kyoto Protocol Target Achievement Plan. The plan outlined a multipronged environmental and economic strategy for reaching Japan's 6% CO₂ reduction commitment that included promoting technological innovation; ensuring participation and collaboration by all stakeholders (national and local governments, businesses, etc.), transparency and information sharing; utilizing various policy measures; and ensuring international collaboration. Against the backdrop of growing awareness of all the environmental problems affecting the planet, the Kawasaki Group developed environmentally friendly products (a.k.a. eco products) and introduced them to the global market in order to achieve its 2010 Environmental Vision (see Table IV).

Achieving Zero Emissions at All Plants

The third stage of EPAP (FY2000–2002) set a goal of achieving zero waste emissions and a recycling rate of 100% at all plants by the end of fiscal 2004.

[Table IV] Environmentally Conscious Products and Environmental Protection Products and Technologies

Environmentally Conscious Products	Products and technologies that protect the environment
Aircraft Boeing 787, a next-generation environmentally friendly aircraft Fitted with a lighter fuselage, the Boeing 787 is expected to save a huge amount of fuel. Kawasaki worked on the development and manufacture of the forward fuselage and other components, utilizing its carbon fiber composite processing technology. Trent 1000, eco-friendly jet engine Kawasaki also participated in the development of a new eco-friendly jet engine from the British manufacturer, Rolls-Royce. It featured improved fuel efficiency contributing to a significant reduction of CO ₂ and NOx emissions. The completed engine was used to power the Boeing 787.	Winning ACEJ Chairman's Award Kawasaki's cogeneration system delivered to Fuji Electric Device Technology Co., Ltd. was highly rated by the Advanced Cogeneration and Energy Utilization Center Japan (ACEJ) for its energy saving, environmentally friendly, and innovative features, earning it the Chairman's Award, which is given to only the most outstanding equipment. Combined cycle power plant (CCPP) Kawasaki employs its high-efficiency L20A gas turbine for combined cycle power plants (CCPPs) that use both gas and steam turbines. The turbine improves energy efficiency and cut CO ₂ emissions at power generation facilities where they are employed.
Ships Environmentally conscious large oil tanker (Katsuragisan) The vessel's fuel oil tank has a double-hull structure similar to that of a cargo tanker to prevent polluting the water in the event of an accident. It's equipped with an energy saving device called the RBS-F* to reduce energy consumption. *RBS-F: Rudder Bulb System with Fins Environmentally friendly electronically controlled marine diesel engine Electronically controlled diesel engines improve fuel efficiency, lower cylinder lubricant consumption, and reduce NOx and dust emissions.	Woody biomass power generation system (fixed bed gasification/gas engine system) This system gasifies lumber residue, timber from forest thinning, clippings, etc., and generates electricity via a gas engine. These wood resources are called woody biomass, and since they grow by absorbing atmospheric CO ₂ , they can be said to be renewable energy sources that do not increase CO ₂ . Low NOx gas turbine power generation systems The use of catalytic combustion further reduces NOx emissions from gas turbine cogeneration systems, which already feature low NOx emissions. The amount is less than a tenth of the emissions (2.5 ppm or less) from conventional gas turbine cogeneration systems.
Rolling stock Environmental measures for China's EMU* (adoption of heavy metal-free paints) Paints for rolling stock used to contain heavy metals such as hexavalent chromium and lead, but Kawasaki is promoting the use of heavy metal-free paints that do not contain these substances as an environmental measure and has also reduced the number of substances listed on the Pollutant Release and Transfer Register (PRTR). *EMU: Electric multiple unit (trains)	Waste treatment and recycling Waste incinerators (stoker incinerators) The advanced stoker system, which dramatically improves the performance of stoker incinerators, achieves high-efficiency power generation and reduced environmental impact. In addition to this, ash is made into slag in a smelter and can be used in asphalt and concrete products. Soda recovery boiler A soda recovery boiler uses waste liquor (black liquor) generated during pulp production in paper mills as fuel. It recovers soda used as a solvent while utilizing the heat from burning the pulp residue in the black liquor all with an eye to conserving the environment.
Plant and industrial machinery Energy conservation via friction spot joining (FSJ) robots An FSJ robot performs spot welding of light alloys such as aluminum and magnesium. It uses frictional heat to soften and fuse the sections of workpieces to be joined. The FSJ process consumes a 20th or less of the power consumed by conventional resistance spot welding, in which workpieces are melted and joined using a high current.	Landfill leachate treatment system (Sado) The leachate treatment system removes organic substances and heavy metals from landfill leachates. Its stable treatment capacity and outstanding water purification performance help protect the environment.
Social infrastructure Effective use of resources by reusing built-in parts on shield machines Kawasaki worked with Araigumi to develop the DSR technique that allows for extracting the internal shell of a shield machine, most of which had been buried underground after construction, and reusing approximately 90% of the parts. This achieved a better use of resources.	

In December 2000, the Harima Works began full-scale efforts toward achieving zero waste emissions. After identifying challenges lying ahead and exploring ways to recycle waste, it achieved zero emissions in September 2001. The factory achieved a recycling rate of 100% for waste it generated annually while successfully slashing waste management costs.

Subsequently all Kawasaki plants worked on zero waste initiatives and achieved a zero emissions status in March 2005 as initially planned, with the Gifu Works, Nagoya Works 1, Nagoya Works 2, and Yachiyo Works all reaching their zero emission targets.

In 2011, Kawasaki redefined zero emissions as a final disposal rate of 1% or less in light of prevailing trends, and has maintained a zero emission status since then.

Shuttering In-house Industrial Waste Treatment Facilities

The Japanese government mandated that companies take responsibility for disposing of their own industrial waste due to the shortage of public landfill sites. Kawasaki turned its eye to Iwaoka, a town located in Tarumi Ward, Kobe City, Hyogo Prefecture (now Iwaoka, Nishi Ward, Kobe). It's there that it established a landfill site in 1973 and then the Industrial Waste Disposal Center (IWDC) in 1979, which was designed to reduce the volume of waste through incineration. In response to the government mandate, the company ceased operation of the IWDC's incineration facility in 2001 (which was followed by its demolition and dismantlement in 2003, and the closing of the IWDC in 2007). It ceased operations at the landfill site in 2003 (and shut it down permanently in 2005). After serving their purpose, there was no room for these facilities in a future where recycling and zero waste emissions were the order of the day. The site is currently being used effectively as an in-house distribution warehouse (completed in 2012) and a 1,500 kW solar power plant (opened in 2014).



Solar power plant at the former landfill site

[Table VI] ISO 14001-certified Kawasaki Locations

Month/year certified	Internal companies and business centers	Group companies, etc.
February 1998	Precision Machinery Business Center	
October 1998	Robot Business Center	
March 1999	Environmental Business Center	
November 1999	Steel Business Center	
February 2000	Consumer Products & Machinery Company	
March 2000	Jet Engine Division, Gas Turbine Business Center	
May 2000	Construction Machinery Business Center	
July 2000	Industrial Machinery Business Center	
August 2000	Crushing Plant Business Center	
August 2000	Shipbuilding Company (Sakaide Works)	
November 2000	Machinery Business Center	
March 2001	Power Plant Business Center	
May 2001	Gas Turbine Business Center & Gas Turbine Research & Development Center	
February 2002	Aerospace Company	Kawajū Gifu Service Co., Ltd., Kawajū Gifu Engineering Co., Ltd., Kawasaki Helicopter System Co., Ltd., and KGM Co., Ltd.
February 2002	Rolling Stock, Construction Machinery & Crushing Plant Company (Hyogo Works)	Kawasaki Rolling Stock Engineering Co., Ltd. (Kawasaki Heavy Industries Hyogo Works)
August 2002	Shipbuilding Company (Kobe Works)	

*Company and division names are as of 2002.

Establishment of Environmental Management System (EMS)

Kawasaki is working to acquire ISO 14001 certification at all its locations. The Shipbuilding Company's Kobe Works acquired certification in August 2002, making all six internal companies ISO 14001-certified (see Table VI).

9) Celebrating the 110th Anniversary

On October 12, 2006, Kawasaki held its 110th anniversary celebration at Kobe Meriken Park Oriental Hotel's Zuiten no Ma banquet hall. The event was attended by Kawasaki executives, former executives, presidents of major domestic affiliates, labor union officials and members of Hyogo prefecture and Kobe city assemblies (who were former Kawasaki employees). A reception was held following a commemorative lecture entitled "The Milestones Made by the Cosmopolitan Kojiro Matsukata," given by Masanori Aoyagi, Director of the National Museum of Western Art.

The Kawasaki Group had been enjoying steady financial progress as it reached this milestone moment. It had seen sales and profits increase for the three consecutive fiscal years from 2004 to 2006, and was about to kick off fiscal 2007 with a bang.

1.

Reaching New Heights

Chapter 2

Toward "Global Kawasaki"

—Living in Harmony with People, Society, and the Planet

2007–2013

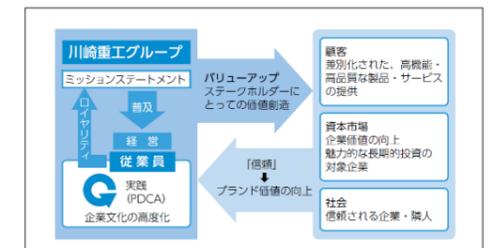
In 2007, the Kawasaki Group drafted a mission statement, "Kawasaki, working as one for the good of the planet," to guide the entire Group in making the leap forward to become a global leader in the 21st century. Following fiscal 2006, the company posted record profits in fiscal 2007, but due to the global economic recession and slowdown caused by the Lehman Brothers collapse, sales and profits declined for the first time in five years in fiscal 2008.

In April 2010, it formulated the Kawasaki Business Vision 2020 and Medium-term Business Plan (MTBP) 2010 (FY2010–2012). In October of the same year, Kawasaki Heavy Industries, Ltd., Kawasaki Shipbuilding Corporation, Kawasaki Precision Machinery, Ltd., and Kawasaki Plant Systems, Ltd., were reintegrated to efficiently and rapidly consolidate and utilize group-wide intellectual assets. The new Kawasaki Heavy Industries, consisting of seven internal companies that emerged from this reintegration then decided to strengthen its solutions business and focus on the development of its environmental and energy systems business. In moving toward the coming low-carbon society and hydrogen society, the company also started to work on demonstrating its CO₂-free hydrogen supply chain technology while building a cooperative consortium.

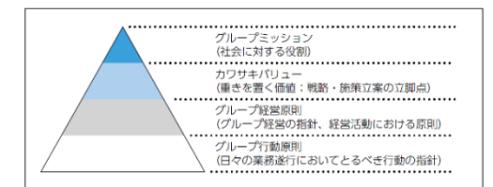
Overseas, the company opened production bases for ships, plants, and precision machinery in China, which was experiencing rapid economic development, and successively opened production and sales bases for motorcycles in the emerging economies of Southeast Asia, Brazil, and India.

1) Establishment of the Kawasaki Group Mission Statement

The Kawasaki Group celebrated its 110th anniversary in October 2006. In September of the same year, the company formulated its medium-term business plan, Global K, aiming to “become a leading global enterprise that enriches lifestyles and helps safeguard the environment through its core businesses” in ten years. In May 2007, the company drafted the Kawasaki Group Mission Statement which underscored its vision for the next decade that was outlined in the Global K medium-term business plan. This mission statement would help the entire Group navigate through the rapidly changing social and business environment as it made the most of its comprehensive technological capabilities in making the leap toward becoming a global leader in the 21st century. Kawasaki had established its Management Principles in 1966 to spell out the corporate culture and management standards it stood for. The new mission statement incorporated all the good that came from those principles over the years and recast them in the light of a new era. The mission statement incorporates the Kawasaki Group's social mission and the values that underlie the Kawasaki brand, as well as the Group Management Principles and Group Action Guidelines. In January 2012 and April 2016, the mission statement was revised to make it easier to understand and more concise without compromising any of the meaning behind the original wording.



Positioning of the Mission Statement in Management



Mission Statement

Kawasaki Group Mission Statement

Group Mission

Kawasaki, working as one for the good of the planet

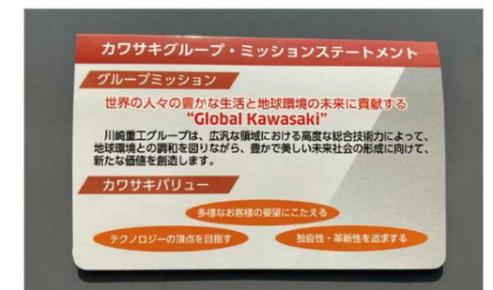
- We are the Kawasaki Group, a global technology leader with diverse integrated strengths.
- We create new value—for a better environment and a brighter future for generations to come.

The Kawasaki Group Core Values

Value Creation: We are globally driven to create new value—both for our customers and for the benefit of society as a whole

Originality: We thrive on originality, innovation and leadership

Excellence: What we produce is of exceptionally high quality and functionality, as we constantly strive to be at the global cutting edge



Mission Statement card distributed to employees

The Kawasaki Group Management Principles

- (i) Trust: As an integrated technology leader, the Kawasaki Group is committed to providing high-performance products and services of superior safety and quality. By doing so, we will win the trust of our customers and the community.
- (ii) Harmonious coexistence: The importance of corporate social responsibility (CSR) permeates all aspects of our business. This stance reflects the Kawasaki Group's corporate ideal of harmonious coexistence with the environment, society as a whole, local communities and individuals.
- (iii) People: The Kawasaki Group's corporate culture is built on integrity, vitality, organizational strength and mutual respect for people through all levels of the Group. We nurture a global team for a global era.
- (iv) Strategy: The Kawasaki Group pursues continuous enhancement of profitability and enterprise value based on three guiding principles—selectively focusing resources on strategic businesses; emphasizing quality over quantity; and employing prudent risk management.

The Kawasaki Group Code of Conduct

- (i) Always look at the bigger picture. Think and act from a long-term, global perspective.
- (ii) Meet difficult challenges head-on. Aim high and never be afraid to try something new.
- (iii) Be driven by your aspirations and goals. Work toward success by always dedicating yourself to your tasks.
- (iv) Earn the trust of the community through high ethical standards and the example you set for others.
- (v) Keep striving for self-improvement. Act on your own initiative as a confident professional.
- (vi) Be a part of Team Kawasaki. Share your pride and sense of fulfillment in a job well done.

2) Weathering the Global Financial Storm and Economic Slowdown

Kawasaki's consolidated net sales in fiscal 2007 reached 1,501 billion yen (up 4.3% year on year) mainly due to an uptick in sales for the shipbuilding, consumer products, and machinery businesses. A turnaround in the shipbuilding as well as plant and infrastructure businesses pumped up profits. Operating income hit 76.9 billion yen (up 11.2% year on year) and recurring profit 63.9 billion yen (up 30.4% year on year), while both net sales and profit figures hit record highs.

In fiscal 2008, the global economic slowdown triggered by the collapse of Lehman Brothers took a significant toll. Consolidated net sales fell to 1,338.5 billion yen (down 10.8% year on year) as operating income and recurring profit both dropped sharply, to total 28.7 billion yen (down 62.6% year on year) and 38.7 billion yen (down 39.4% year on year) respectively. Sales and profits declined for the first time in five years.

The bleak business environment cast a dark shadow over the horizon and left no hope that Kawasaki's performance would bounce back in fiscal 2009. Among its produce-to-order businesses, Kawasaki had an abundance of backorders for the rolling stock, gas turbine and machinery, and shipbuilding businesses, which gave it enough work for the foreseeable future. However, new orders for the shipbuilding and other businesses were drying up.

The aerospace business was also in rough shape due to delays in both the development of the next-generation C-X transport aircraft as well as the mass production of the Boeing 787.

Meanwhile, among the mass-production businesses, the consumer products and machinery business, which had been a cash cow for the entire company, was hit hard by lagging performance in developed countries that were its key markets. It was the same story for the precision machinery, robot, and construction machinery businesses where production also declined rapidly. On top of that, the yen's appreciation against all currencies in the foreign exchange market had an inevitable impact on earnings.

The consumer products and machinery business as well as the robot business, in particular, suffered significant sales declines. Their employees were reassigned or seconded to further reduce fixed costs. Production workers in the consumer products and machinery business went to other companies to assist with their operations.

3) Building a Solid Revenue Base for Sustainable Growth**Continuing Reforms to Cultivate a Sustainable Growth Cycle**

The Kawasaki Group decided to firm up its business foundation in order to withstand the worsening recession caused by the global economic downturn. President Tadaharu Ohashi noted that it was a critical time for the Group, and that they would work hard to rebuild the revenue base and return to a sustainable growth path. He laid out an urgent business management strategy focusing on: (1) ensuring quality over quantity and strict risk management; (2) bolstering the business foundation; (3) investing in growth; and (4) getting business back on a growth trajectory. He emphasized that Kawasaki should closely monitor changes in the market environment, be selective about what orders it accepted and make discerning investments based on thorough risk assessments of businesses that were likely to experience a decline in demand, and all the while focus on reducing the break-even point, improving cash flow, and streamlining the balance sheet. He decided to invest resources in growth areas such as energy and the environment as well as research and development vital to building the Group's future technological foundation as planned. He also planned to continue strategically investing in key markets with a keen eye to selecting the right targets, the amount and speed of resource input needed, etc.

In addition to that, he compiled a list of tasks to be done for mass-production businesses, including quickly optimizing inventory levels, bringing fixed costs down to where they were commensurate with the market size, and improving marginal profit ratios. When it came to produce-to-order businesses, the focus was placed on enhancing the profitability of large mass-production projects and promptly responding to foreseeable loss risks.

Ohashi said, "We will temporarily hold back on investing in businesses and products that are in jeopardy as we strive to maintain a stable operating foundation upon which the Group as a whole can move ahead with preparations for our leap forward into a bright new future."



President Ohashi's 2009 New Year's address in the company newsletter describing his business management policy

Measures Taken by Business Divisions

The following measures were implemented by individual businesses so they could boost their bottom line amid the global economic downturn.

[Rolling Stock]

Strengthen business operations in the three major markets of Japan, North America, and the rest of Asia, with the huge backlog of orders for projects in North America and elsewhere

[Aerospace]

Move ahead with large-scale projects, such as moving into the mass production of next-generation fixed-wing maritime patrol aircraft, completing the development of the next-generation transport aircraft, and meeting mass production requirements to supply components for the Boeing 787

[Gas Turbine & Machinery]

Proceed with the development of new jet engines for commercial aircraft, work on developing new products and models for industrial gas turbines, high-efficiency gas engines, etc. to strengthen Kawasaki's position in the energy and environmental engineering business, and boost overall productivity to gain a bigger competitive edge

[Consumer Products & Machinery]

Increase the profitability of motorcycles sold in developed countries, which constitutes Kawasaki's top priority business, despite the global recession. Strengthen development and production systems on a global basis with the aim of making Kawasaki products more competitive

[Robots]

Strengthen development capabilities and expand customer base

[Construction Machinery]

Improve development and sales capabilities through alliances with Hitachi Construction Machinery and TCM

[Shipbuilding]

Step up efforts to optimize Kawasaki Shipbuilding Group production systems, including its China operations, to pave the way for better earnings in anticipation of new orders in the future

[Plant & Infrastructure]

Accelerate the development of the energy and environmental engineering business as set forth in the Global K medium-term business plan, under the leadership of Kawasaki Plant Systems

[Precision Machinery]

Make strategic investments of corporate resources while lowering the breakeven point, and strengthen global operations covering the five key markets (Japan, U.S., Europe, China, and South Korea)

Through the implementation of the above measures, the Kawasaki Group aimed to enhance profitability in all aspects of its business, increase enterprise value by ensuring compliance, and build a trusted brand.

Consolidation of Affiliates

● Aim of consolidation

Kawasaki worked to clearly define the boundaries of its business domains, thoroughly implement the selectivity and concentration strategy, and focus on strengthening Group management capabilities, the priority measures outlined in the Global K medium-term business plan which went into effect in fiscal 2006.

As part of these efforts, the company identified where its affiliates and their businesses fall in its Group operations as well as the direction they should be headed, and started implementing action plans in 2007 to achieve goals set in Global K.

Specifically, the company determined the future direction of its affiliates' businesses in terms of synergies they would generate within the Group, their future profitability and strategic value, and in light of the original nature of these businesses. The company also looked at consolidating companies that didn't fall squarely under the business domains listed in the medium-term business plan as well as businesses (affiliates) with overlapping functions.

The purpose of consolidating affiliates was threefold.

- (i) Reduce indirect costs through the integration of affiliates and effectively use management resources, such as people, goods, and money, to enhance synergies and improve management efficiency and quality.
- (ii) Increase the number of affiliates above a certain size through consolidation so they could also be used as centers of strategic human resources development for the future of the Kawasaki Group.
- (iii) Further enhance group-wide legal compliance and strengthen internal control functions by reorganizing and consolidating affiliates.

The combined effect of the above reasons would enhance the overall quality of management and further strengthen the Group's earning power through centralized organizational management, faster business operations, etc.

● Changes in the number of affiliates after consolidation

As of January 1, 2007, Kawasaki had 136 affiliates (86 in Japan and 50 overseas). After looking at their status with an eye to consolidating affiliates operating under the same business division, eliminating overlapping businesses, and ensuring profitability and a competitive advantage in comparison with other specialized companies, Kawasaki worked on consolidating them as necessary until the end of fiscal 2008. The company continued to review the operations of its affiliates beyond fiscal 2009, and as of the end of March 2014, the number of affiliates totaled 127 (64 in Japan and 63 overseas). The number of affiliates in Japan had been whittled down by a total of 22 (after cutting 32 and adding 10). The number of overseas affiliates, on the other hand, grew by 13 (after cutting 7 and adding 20) due to the expansion of global operations (see Table I).

[Table I] Changes in the Number of Affiliates

	Japan	Overseas	Total	
January 1, 2007	86	50	136	
Change	Decrease	-32	-7	-39
	Increase	10	20	30
	Total	-22	13	-9
March 31, 2014	64	63	127	

[Table II] Changes in the Number of Affiliates That Are Consolidated Subsidiaries

	Japan	Overseas	Total	
January 1, 2007	58	36	94	
Change	Decrease	-21	-3	-24
	Increase	7	15	22
	Total	-14	12	-2
March 31, 2014	44	48	92	

The number of affiliates that were consolidated subsidiaries totaled 94 (58 in Japan and 36 overseas) as of January 1, 2007, then 92 (44 in Japan and 48 overseas) as of March 31, 2014, with a decrease of 14 (after cutting 21 and adding 7) in Japan and an increase of 12 (after cutting 3 and adding 15) overseas (see Tables II and III).

[Table III] Among Affiliated Companies as of January 1, 2007, Consolidated Subsidiaries That Were Eliminated or Added by March 31, 2014 (Excluding Spin-offs, Mergers, and Waste Treatment Facility Operation and Maintenance Companies)

• **Eliminated companies (21 in Japan and 3 overseas)**

	Company Name	Month/Year	Description
Japan	Kawasaki Helicopter System, Ltd.	March 2007	Partial share transfer
	Fukae Powtec Co., Ltd.	March 2007	Transfer of shares to EarthTechnica Co., Ltd.
	Technica Corp.	October 2007	Merged into Shinko Die Casting Co., Ltd. (the trade name remained Technica Corp.)
	Kawasaki Construction Co., Ltd.	January 2008	Merged into Kawasaki Heavy Industries
	KRT Co., Ltd.	April 2008	Merged into Kawasaki Rolling Stock Component Co., Ltd.
	Sakaide Ace Co., Ltd.	April 2008	Merged into Kawajyu Sakaide Service Co., Ltd. (which was renamed Kawasaki Techno Wave Co., Ltd. on January 1, 2009)
	K-Point Co., Ltd.	July 2008	Merged into Kawasaki Motors Corporation Japan
	KAA Co., Ltd.	January 2009	Merged into K-TEC Corp.
	Kawajyu Hyogo Service Co., Ltd.	April 2009	Merged into Kawasaki Rolling Stock Component Co., Ltd.
	Nisseki Service Consultant Co., Ltd.	April 2009	Merged into Nichijo Manufacturing Co., Ltd.
	Enetec Co., Ltd.	April 2009	Merged into Kawasaki Engineering Co., Ltd.
	Kawasaki Oita Manufacturing Co., Ltd.	August 2010	Liquidation completed on August 18 following the approval of dissolution on March 31
	Kawasaki Gas Turbine Research Center Ltd.	August 2010	Operations ceased at the end of March 2009, and liquidation completed on August 23, 2010 following the approval of dissolution on December 31, 2009
	Akashi Ship Model Basin Co., Ltd.	April 2011	Merged into Kawasaki Marine Engineering Co., Ltd.
	Ship Partners Limited	April 2011	Merged into Kawasaki Marine Engineering Co., Ltd.
	Kawajyu Steel Works & Engineering Co., Ltd.	October 2011	Merged into Kawaju Facilittech Co., Ltd.
	Fukae Powtec Co., Ltd.	April 2012	Merged into EarthTechnica Co., Ltd.
	Kawasaki Shipbuilding Inspection Co., Ltd.	July 2012	Merged into Kawajyu Kobe Support Co., Ltd.
	Kawaju Tokyo Service Corporation	July 2012	Merged into Kawasaki Life Corporation
	Kawasaki Metal Industries, Ltd.	July 2012	Liquidation completed on July 6, 2012 following the approval of dissolution on December 31, 2011
K-GES Co., Ltd.	April 2013	Merged into Kawasaki Motors Corporation Japan	
Overseas	Kawasaki Aeronautica do Brasil Industria Ltda.	March 2007	Liquidation completed on March 20
	KHI Europe Finance B.V.	March 2009	Liquidation completed on March 31, 2009 following the approval of dissolution on December 8, 2008
	Kawasaki Motors Racing B.V.	April 2010	Merged into Kawasaki Motors Europe N.V.

• **Added companies (* indicates companies that became consolidated subsidiaries due to changes in stock holdings) (7 in Japan and 15 overseas)**

	Company Name	Month/Year	Description
Japan	*EarthTechnica Co., Ltd.	April 2008	Made into a wholly owned subsidiary through stock purchase
	*EarthTechnica M&S Co., Ltd.	April 2008	In connection with EarthTechnica becoming a wholly owned subsidiary
	*Fukae Powtec Co., Ltd.	April 2008	In connection with EarthTechnica becoming a wholly owned subsidiary
	KCM Corporation	January 2009	Established to take over the operations of the Construction Machinery Business Center (Kawasaki's construction machinery division was spun off and transferred to KCM Corporation on April 1.)
	KCMJ Corporation	January 2009	Established to take over the construction machinery division operations of Kawasaki Machine Systems, Ltd. (KMS) (KMS's construction machinery division was spun off and transferred to KCMJ Corporation on April 1.)
	Kawasaki Robot Service, Ltd.	January 2012	Established to take over the robot division operations of Kawasaki Machine Systems, Ltd. (KMS) (KMS's robot division was spun off and transferred to Kawasaki Robot Service, Ltd. on April 1.)
	Kawaju Heartfelt Service Co., Ltd.	September 2013	Special-purpose subsidiary for the employment of persons with disabilities Engaged in contracting employees who perform general clerical work, real estate maintenance, management and cleaning, etc.
Overseas	Kawasaki Motors Racing B.V.	March 2007	Engaged in the operation of MotoGP races, acquisition and storage of operational equipment, and administrative work
	KCM Receivables Funding LLC	September 2007	Engaged in the acquisition, holding, and sale of KCM dealer receivables for the purpose of securitization of receivables
	Kawasaki Motores do Brasil Ltda.	October 2007	Engaged in the production and sales of motorcycles, ATVs, PWCs, and related businesses in Brazil
	Kawasaki Heavy Industries Middle East FZE (United Arab Emirates)	July 2008	Engaged in the marketing and sales of Kawasaki products and providing related support in the Middle East and North Africa
	*KHITKAN, Co., Ltd.	February 2009	Became Kawasaki's wholly owned subsidiary after Kawasaki Motors Enterprise (Thailand) Co., Ltd. acquired all shares in the company
	Kawasaki Trading do Brasil Ltda.	April 2009	Engaged in the sales of steelmaking, power generation, marine, hydraulic, transport, and other related equipment in the Brazilian market (wholly owned by Kawasaki Trading Co., Ltd.)
	Kawasaki Chunhui Precision Machinery (Zhejiang) Ltd.	August 2009	Engaged in the manufacture and sale of hydraulic pumps for construction machinery
	Kawasaki Precision Machinery Trading (Shanghai) Co., Ltd.	February 2010	Engaged in the sales of Kawasaki Precision Machinery, Ltd. products (including products made by joint ventures) as well as customer service and customer satisfaction management activities in China
	Kawasaki Trading (Shanghai) Ltd.	April 2010	Engaged in the sales of power generation equipment as well as steel-related, marine, hydraulic, and civil engineering machinery plus other related equipment in the Chinese market (wholly owned by Kawasaki Trading Co., Ltd.)
	India Kawasaki Motors Private Limited	July 2010	Engaged in the production and sales of Motorcycle & Engine Company products and related operations
	Kawasaki Componentes da Amazonia Ltda.	November 2011	Engaged in the production and sales of motorcycle, ATV, PWC, small engine parts and engines (wholly owned by KMB)
	Wipro Kawasaki Precision Machinery Private Limited	February 2012	Engaged in the manufacture, sale, and servicing of hydraulic pumps for construction machinery (74% owned by Kawasaki)
	Kawasaki Hydrogen Engineering Australia Pty Ltd	August 2012	Engaged in design work for the CO ₂ -free hydrogen energy supply chain project
	Kawasaki Robotics (Kunshan) Co., Ltd.	January 2013	Engaged in the procurement of industrial robot parts and peripheral equipment
	PT.Kawasaki Motor Sales Indonesia	February 2014	Engaged in the import and sale of finished motorcycles and parts (99.90% owned by KMI)

• **Consolidation and integration of service divisions in the Kansai Region**

In October 2008, service operations and functions of service companies in Hyogo Prefecture, including Kawaju Kobe Support Co., Ltd., Kawajyu Hyogo Service Co., Ltd., Kawaju Akashi Service Co., Ltd., Kawaju Facilittech Co., Ltd., and Kawasaki Life Corporation (Office Support Division), were consolidated and integrated into Kawaju Service Co., Ltd. (renamed Kawaju Akashi Service Co., Ltd.) to enhance and streamline management.

• **Withdrawal from the bridge and floodgate business**

Kawasaki had been carrying out structural reforms of its businesses since 2000, including spinning off its shipbuilding, precision machinery, and plant businesses, and forming a joint venture for its crusher business. As part of this process, the company was also looking into spinning off its bridge business. With little hope left for maintaining and expanding the business in light of diminishing public investment in Japan, its primary market, Kawasaki finally decided to withdraw from the bridge and floodgate business altogether in June 2007.

• **Restructuring of the construction machinery business**

In the construction equipment industry, where global cooperative relationships were beginning to blossom, competing companies were ramping up the scale of production while aggressively making inroads into overseas markets and strengthening their IT capabilities in the service sector. While Kawasaki's Construction Machinery Business Center also looked to expand its operations, a lack of management resources made it difficult to do in the rocky business environment. As a solution Kawasaki sought partnerships with other companies and signed a tripartite business alliance agreement in the wheel loader business with Hitachi Construction Machinery Co., Ltd. and TCM Corporation (currently Mitsubishi Logisnext Co., Ltd.) in October 2008.

In April 2009, Kawasaki spun off its construction machinery division into KCM Corporation specializing in construction machinery design, manufacture, sales, and repair. In the same month, the domestic construction machinery sales and service division and other operations of Kawasaki Machine Systems, Kawasaki's wholly owned subsidiary, were spun off and transferred to KCMJ Corporation, Kawasaki's other wholly owned subsidiary established in January 2009.

In June 2010, Hitachi Construction Machinery took a stake in KCM in the form of a third-party allocation of new shares, bringing KCM's shareholder composition to 66% for Kawasaki and 34% for Hitachi Construction Machinery. Kawasaki subsequently transferred all its shares in KCM to Hitachi Construction Machinery in October 2015. KCMJ, a subsidiary of KCM, was transferred to Hitachi Construction Machinery Japan Co., Ltd. on the same day.



Kawaju Service Co., Ltd. head office building



4) Crane Accident at Kawasaki Shipbuilding's Kobe Works and Kawasaki's Commitment to Safety

On August 25, 2007, at the Kobe Works of Kawasaki's subsidiary, Kawasaki Shipbuilding, a 30-meter-long arm of a shipbuilding crane (elevated approximately 50 meters high and weighing about 800 tons) collapsed, killing three of nine workers who were repairing the crane, and injuring four others.

Kawasaki Shipbuilding set up an emergency headquarters to investigate the collapse of the crane that occurred at its Kobe Works No. 4 Building Berth. Under the president's direction, the company worked to uncover the facts, determine the cause of the accident, and implement measures to prevent a recurrence. The company promptly cut the amount of compensation paid to all full-time directors as a measure of accountability for the terrible accident and harm it caused to all involved.

Working to strengthen its management structure, Kawasaki Shipbuilding created a new position of chairman and, to fill it, appointed Masatoshi Terasaki, senior executive vice president of its parent company, Kawasaki Heavy Industries, in December 2007. In response to this accident, Kawasaki president, Tadaharu Ohashi, in his 2008 New Year's address, assured all employees that he would strengthen the safety management system of the entire Kawasaki Group. He pledged to put safety first for all employees, products, and equipment, with an aim to eradicate serious accidents, and prevent such an incident from ever occurring again.

2.

Achieving the Group Mission and Consolidating Four Companies

1) Inauguration of Satoshi Hasegawa as President

In June 2009, Kawasaki president, Tadaharu Ohashi, became the chairman, and Satoshi Hasegawa, the senior executive vice president, became the president. Hasegawa took over the helm in the midst of a global recession the likes of which they say could only occur once in 100 years. He made clear exactly where he stood on management policy right from the beginning, saying, "Kawasaki operates a wide range of businesses that support the development of public infrastructure around the world. As a company living in the 21st century, we should operate with a broad awareness of our corporate social responsibility, focusing not only on environmental issues with our products and manufacturing processes, but also on our relationships with all our stakeholders, including shareholders, customers, employees, and local communities."



Chairman Ohashi (left) and President Hasegawa (right)

2) Formulation of the Medium-Term Business Plan 2010 and Kawasaki Business Vision 2020

Kawasaki worked on expanding operations in North America, Asia, and other overseas markets as well as improving its financial position under the Global K medium-term business plan (FY2006–2010), which was launched in fiscal 2006, and achieved significant results, including record profits for two consecutive years in fiscal 2006 and 2007. However, the global economic recession that began in the fall of 2008 forced the company to revise this plan. Then, in April 2010, it formulated the Kawasaki Business Vision 2020 and the Medium-Term Business Plan (MTBP) 2010 (FY2010–2012), outlining the Group's vision for 2020 and a roadmap for achieving that vision. In an attempt to adapt quickly and flexibly to the changing business environment, the medium-term management plan was shortened from the conventional period of five years to three. The summary of the Kawasaki Business Vision 2020 and MTBP 2010 is as follows.



The Relationship between the Kawasaki Business Vision 2020 and the Medium-Term Business Plan

<Kawasaki Business Vision 2020>

[Business Vision]

Aiming to achieve the Group Mission, we will move toward becoming a company that provides products and services designed to meet the diverse needs of people around the world by leveraging our advanced technological capabilities in three principal business sectors: transport systems, energy and environmental engineering, and industrial equipment.

[Basic Strategy]

(1) Strengthening of the business base

- Classify each business as a “developing business,” a “core profit-making business,” or a “business requiring review” and concentrate management resources on developing businesses and core profit-making businesses. On the basis of careful examination of market trends, implement structural reform or downsize or withdraw from businesses requiring review.

- In the existing businesses that constitute the Group's earnings structure, maintain and increase competitiveness as well as create stable earnings and cash flow. Furthermore, actively pursue expansion into new products and new markets to develop an earnings structure for the future.
- (2) Reinforcement of development and technological capabilities and *monozukuri* (manufacturing) capabilities
 - Anticipate developments in society until around 2030 and identify business sectors where needs will increase in the medium term to long term. On that basis, utilize the Group's intellectual assets to nurture and reinforce competitive new products and businesses.
 - Position the Group's plants in Japan as development and production bases that integrate advanced technological capabilities and reinforce development and technological capabilities and *monozukuri* capabilities.
- (3) Global business development in overseas markets
 - In overseas markets that offer prospects for expansion, principally developing countries, formulate regional market entry strategies based on existing products and technologies while simultaneously pursuing market development through product development adapted to regional needs.
- (4) CSR and environmental response
 - Enrich lifestyles and improve the global environment through products that incorporate the ultimate in energy-saving, low environmental impact technologies.
 - Establish the Environmental Vision 2020 and engage in environment-friendly business operation. Be conscious of corporate social responsibility in all business activities and steadily implement CSR activities.
- (5) Implementation of personnel policies
 - Develop and improve such systems as personnel and education and create a corporate climate in which employees strive to improve their skills and can take maximum advantage of their abilities.
 - Build a safe, worker-friendly work environment that reflects consideration of work-life balance and diversity.

[Quantitative Vision of Consolidated Performance] (FY2020)

Net sales	2 trillion yen
Recurring profit	100 billion yen or higher (Ratio of recurring profit to sales: 5.0% or higher)

<MTBP 2010>

[Basic Objectives]

- (1) Return to a growth path
 - Rebuild the earnings structure during the term of the Medium-Term Business Plan and return to a growth path in preparation for achievement of the Kawasaki Business Vision 2020.
- (2) Reinforce overall Group profitability
 - Pursue radical cost reduction and productivity improvement in all development, design, procurement, and *monozukuri* processes and reinforce overall Group profitability by implementing bold structural reform of businesses experiencing or expected to experience demand shortages.

- (3) Strengthen business foundations in preparation for future growth
 - Steadily nurture new products and new businesses in preparation for achievement of the Kawasaki Business Vision 2020 and engage in business overseas, focusing on developing countries.
- (4) Reinforce the Group's collective strength
 - Reorganize the business structure through the re-merger of Group companies and establish an internal company system with companies to operate in seven business segments: Shipbuilding, Rolling Stock, Aerospace, Gas Turbines & Machinery, Plant & Infrastructure, Motorcycle & Engine, and Precision Machinery. In this way, accelerate the upgrading of existing products and product development in new business sectors. In particular, maximize the benefits of establishing a Plant & Infrastructure Company.
 - Reinforce the Group's collective strength by promoting the sharing and utilization of intellectual assets within the Group related to technology, marketing, and human resources.
- (5) Achieve a worker-friendly work environment
 - Develop such systems as personnel and education that place importance on work-life balance and diversity.

[Key Strategies for Returning to a Growth Path]

- (i) Reinforce the capability to respond to changes in the business environment by lowering the break-even point for mass-production businesses through means including fixed cost reductions and optimize inventory levels. Make putting the motorcycle business in the black an especially important priority.
- (ii) For businesses that produce custom-built products based on individual orders, emphasize profitability, increase cost competitiveness by implementing rigorous risk management in business operation, and achieve the profit target.
- (iii) Improve the financial position through cash flow improvement and reduction of interest-bearing debt.

[Key Policies and Measures]

- (i) Reinforce and nurture businesses that will constitute the future earnings structure
- (ii) Accelerate global business development
- (iii) Share and utilize intellectual assets across the Group
- (iv) Strengthen technological capabilities
- (v) Strengthen product development and *monozukuri* capabilities
- (vi) Promote effective use of plants and business sites
- (vii) Develop human resources, personnel systems, and the workplace environment
- (viii) Implement environmental management
- (ix) Develop IT strategy and systems
- (x) Implement group-wide risk management

[Consolidated Quantitative Targets] (FY2012)

Net sales	1.4 trillion yen
Operating income	52 billion yen (Ratio of operating income to sales: 3.7%)
Recurring profit	56 billion yen (Ratio of recurring profit to sales: 4.0%)
Before-tax ROIC	8.5%
Interest-bearing debt	430 billion yen (FY2012 year-end balance)



Firm handshake to mark the merger of the four Group companies

(xi) Improve the quality of headquarters departments

3) Integrating Four Group Companies to Consolidate Technologies and Know-how and Cultivate New Businesses

Kawasaki worked on transforming itself from a heavy industry company into a flexible enterprise and strengthened its business foundation by implementing the principal management policies of quality over quantity, selectivity and concentration, and increased autonomy for business divisions, as set out in the medium term business plan formulated in 2000. In following through on these policies, Kawasaki spun off its shipbuilding and precision machinery divisions on October 1, 2002, and the plant engineering division on April 1, 2005, making them its wholly-owned subsidiaries. After the spin-off, the three subsidiaries strived to strengthen their competitiveness with an eye to becoming independent and achieving profitability.

As a result, the Kawasaki Group was able to achieve its original goal of transforming its corporate structure and strengthening its business foundation.

Guided by its mission statement adopted in 2007, Kawasaki had worked to create new value for a better environment and brighter future by leveraging its advanced technological capability across a broad range of fields. Creating new value involves making existing products smarter through innovation and developing new products in totally new fields. To do this Kawasaki had to work quickly to efficiently integrate operations and make the most of the entire Kawasaki Group's intellectual assets.

That's why, in October 2010, Kawasaki decided to remerge Kawasaki Shipbuilding, Kawasaki Precision Machinery, and Kawasaki Plant Systems and achieve maximum efficiency by leveraging the Group's technological assets and human resources, while removing any of the limitations caused by being subsidiaries.

The new Kawasaki born as a result of this re-merger was now poised to use this opportunity as a springboard toward reaching the goal proclaimed in its mission statement to be a profitable global corporate group working as one for the good of the planet.

4) Reorganizing Corporate Divisions and Internal Company Operations

Corporate Divisions

In fiscal 2010, when the four group companies were integrated, Kawasaki also reorganized its corporate divisions. The Corporate Technology Division established a company-wide system for developing new businesses. It focused on the early involvement of internal companies and budgeting part of the costs at the head office, while conducting research on hydrogen-related and other future businesses.

The office functions of the plant complexes were incorporated into the head office which would carry out overall plant operations with a long-term perspective. It was an independent corporate organization that acted as an external representative of all plants and performed operations common to all plants.

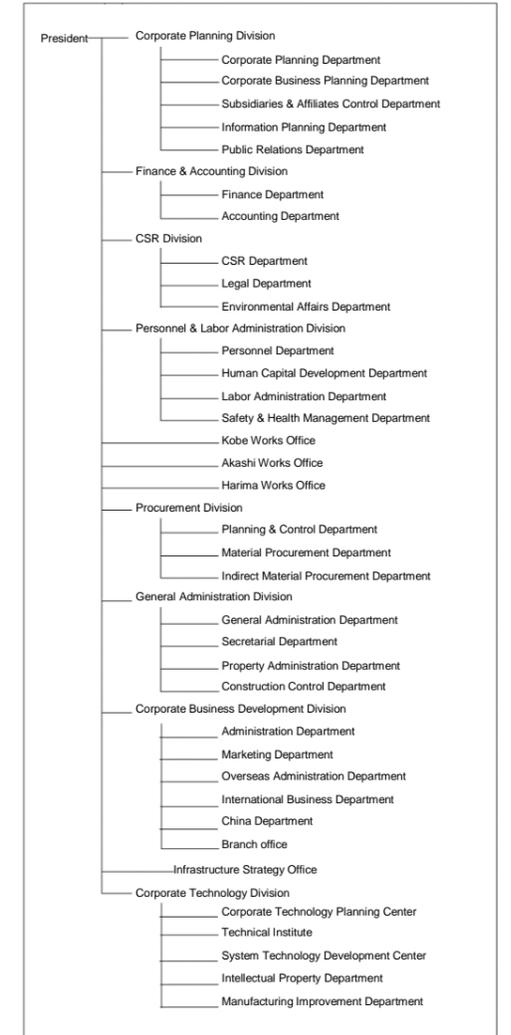
The Procurement Division was newly established with an eye to strengthening the Kawasaki Group's procurement capabilities. It established a centralized purchasing system in order to share information about domestic and overseas procurement across the organization and deliver advantageous purchasing terms based on the company-wide order volume. In addition to that, the Infrastructure Strategy Office was newly created to share information across the company that would contribute to management decisions regarding the infrastructure market. It focused on next-generation energy and provided relevant divisions with specific information that would help them identify opportunities and cultivate new businesses. The new division would facilitate Kawasaki's efforts to build stronger ties with the public and academic sectors, gather information on the market as well as related internal departments, and expand its business in the promising infrastructure market.

In November 2012, after leasing the entire TIS Takeshiba Building located at Kaigan 1-chome, Minato Ward, Tokyo, the company moved its Tokyo head office there (which was tentatively named the Hamamatsucho Building) from the World Trade Center Building at Hamamatsucho 2-chome, Minato Ward, Tokyo. At the same time, it merged the Tokyo Office (plant and infrastructure business operations) in Minamisuna, Koto Ward into the new head office location. The Marketing Division, which was established in April of the same year, seized this opportunity to spearhead the sharing of intellectual assets within the company. In gearing up its comprehensive efforts aimed at creating markets in Japan as well as overseas, it went a long way to helping the Kawasaki Group create further value.

Ship & Offshore Structure Company

The prolonged slump in the shipping market since the collapse of Lehman Brothers had resulted in a decline in demand for new vessels. On top of that, the ultra-strong yen and weak won blunted Japanese shipyards' competitive ability and pulled the plug on new shipbuilding orders. Kawasaki's Ship & Offshore Structure Company had also seen a significant decline in merchant shipbuilding volume since the second half of fiscal 2012. As a result, the company decided to downsize the workforce at its Sakaide Works. It then laid out strategic business management plans for the plant with a focus on: (1) maintaining its operational foundation for years to come since it serves as the key factory; (2) developing the LPG-fueled vessel and offshore development businesses into future profit engines, with the aim of building two LNG carriers and one LPG carrier every year; and (3) minimizing losses after the second half of fiscal 2012, when the utilization rate would inevitably take a precipitous dive.

As part of this strategy, the production staff at the Sakaide Works were transferred to other internal companies, with some assigned to the Machinery Business Center in December 2012, and others to the Aerospace and Precision Machinery Companies in May and June of 2013.



Organization chart (As of Oct.1, 2010)



Hamamatsucho Building where the Tokyo head office was relocated

Clerical and engineering personnel were transferred to the head office and other internal companies between October 2012 and March 2014.

Plant & Infrastructure Company

In 2011, Kawasaki decided to strengthen organizational functions and improve efficiency at the Plant & Infrastructure Company. It would do that by consolidating its engineering and common back-office functions, which were dispersed throughout the Kobe and Harima Works, into a new administrative office at the Kobe Works, and transferred Harima Works employees to the Kobe Works in September of the same year.

As a result, the manufacturing division of the Harima Works was positioned as a common production base for all business units (BUs) of the Plant & Infrastructure Company, and all BUs were poised to join hands in better utilizing the plant.

Precision Machinery Company (Robot Division)

In April 2012, the Robot Division incorporated the sales division of the Kawasaki Machine Systems (KMS) robot business to establish an organizational structure that would enable it to work closely with the development, design, and engineering divisions in developing strategies and quickly delivering solutions that would fulfill customer needs via better product development and improvement. In April 2012, the service division was transferred to Kawasaki Robot Service, Ltd., which was established in January of the same year by spinning off KMS's robot division. The move would enable the division to supervise and engage in overall service operations across the globe. KMS continued to sell and service gas turbine power generation systems.

5) The Great East Japan Earthquake and Helping Build Back

Aiding Disaster Areas and Victims

At 2:46 p.m. on March 11, 2011, a massive earthquake with a magnitude of 9.0 struck off the northeast coast of Japan. The quake triggered a towering tsunami measuring more than nine meters that hit the Pacific coast of Japan's Tohoku and Kanto regions, leaving a trail of death and destruction in its wake. Although the Kawasaki Group did not suffer any human casualties, some of its sales and service bases in the Tohoku region were severely damaged, where the head office and various other divisions came together to help with reconstruction work.

Meanwhile, the Group donated a total of 100 million yen spread across three prefectures and one municipality as well as the Japanese Red Cross Society to support the disaster areas and victims.



D-Tracker X and D-Tracker 125 motorcycles donated to Iwate Prefecture

As part of its efforts to be a good corporate citizen, Kawasaki reached out to numerous local government officials and other relevant parties to find out exactly what kind of equipment they needed. It donated 30 of its motorcycles to help responders in the disaster areas get around more easily and efficiently transporting goods to those in need. In addition to the motorcycles, Kawasaki also donated five KCM wheel loaders and an EarthTechnica crusher for use in debris disposal. Beside the vehicles, whose sum total value added up to 100 million yen, the company also provided a helicopter, which became the community's eye in the sky, at no cost. Kawasaki's domestic and overseas group companies also provided a total of 38 million yen to assist in relief efforts. In 2013 and 2014, the company donated two of its Jet Ski® watercraft.



Wheel loader used for debris disposal and land leveling



EarthTechnica crusher

Revising Business Continuity Plan

The Kawasaki Group had developed disaster prevention measures based on the lessons learned from the January 1995 Great Hanshin-Awaji Earthquake and had worked on business continuity planning (BCP) since the outbreak of a new influenza virus in 2009. Following on the heels of the Great East Japan Earthquake, Kawasaki revised its business continuity plan for large-scale earthquakes and set forth a basic corporate policy to clarify courses of action to take in the event of an emergency.

<Basic Corporate Policy>

- Ensure the safety and health of employees and their families.
- Ensure services and products that are essential to the fulfillment of corporate responsibility go on without interruption.
- Get Group operations back to normal.
- Acknowledge responsibility to local communities and contribute to each region.

Working with this basic corporate policy in mind, Kawasaki was to: (1) designate functions to be maintained at the head office and internal companies in the event of disaster; (2) consider the appropriate actions to take in the wake of a disaster and prepare for the eventuality of such events during normal times; and (3) conduct drills regularly and revise the BCP based on the outcome of the drills.

In order to respond quickly and flexibly to emergency situations, the Corporate Command Center, Integrated Plant Command Center, Company Command Center, and Local Command Center were also established as the Group's crisis management system.

6) Overseas Production and Sales

Overseas Sales Exceeds 50% of Overall Group Sales

Since the 1960s, the Kawasaki Group has been aggressively expanding its business overseas. In 2010, its overseas sales ratio reached 55%, and employees working overseas accounted for 25% of the total workforce.



Section of CSR Report 2012 on the revised BCP

Crisis Management System

	Key Role	Location
Corporate Command Center	Set up in the event of a crisis that requires a companywide response; determines measures to be implemented throughout the Group and basic policy on action plans.	Office that has not sustained any damage In principle, either the Kobe Head Office or the Tokyo Head Office
Integrated Plant Command Center	Determines issues related to all plants; coordinates with internal companies.	Plant facilities of several internal companies
Company Command Center	Provides internal company support in areas devastated by the disaster; determined responses to affected suppliers and customers.	Appropriate location at each internal company
Local Command Center	Determines responses for business segments and business offices.	Office that sustained damage

Overseas Sales, Sales Ratio, and Number of Affiliated Companies

	1990	2000	2010
Overseas sales	223 billion yen	432 billion yen	669 billion yen
Overseas sales ratio	25%	41%	55%
Number of overseas affiliated companies	13	29	46

Kawasaki used the lessons learned from motorcycle production in the United States that had begun in 1975 to expand the operations of other businesses overseas. As a result, the company now boasts full-scale overseas production facilities for everything from rolling stock to construction machinery, precision machinery, general-purpose gasoline engines, ships, and marine machinery, while also supplying high-quality products all around the world.

From around 2007 to 2013, the company sought to make further market inroads encompassing a wide range of businesses, including shipbuilding, plants, and precision machinery, in China, which was experiencing rapid economic growth at the time. In emerging economies such as Southeast Asian countries, Brazil, and India, the company's motorcycle business grew by leaps and bounds.

Growth of Kawasaki Operations in China

[Shipbuilding]

In 1995, Kawasaki and China Ocean Shipping (Group) Company (COSCO) signed an agreement to establish a joint venture company that would serve as a production base for the shipbuilding business in China, and in January 1999, incorporated Nantong COSCO KHI Ship Engineering Co., Ltd. (NACKS) in Nantong City, Jiangsu Province, China. In 2008, it became one of the top shipbuilding companies in China with the completion of its second dock (measuring 500 meters long, 80 meters wide, and 12.8 meters deep and equipped with 5 cranes) in addition to its first dock (measuring 350 meters long, 68 meters wide, 12.8 meters deep and equipped with 5 cranes) which was already in operation.

At the same time, NACKS established a joint venture with Wuhan Marine Machinery Plant Co., Ltd., Wuhan Kawasaki Marine Machinery Co., Ltd. (WKM), in Wuhan, Hubei Province to produce side thrusters.*² Production increased nearly threefold in the five years from 2002, reaching a total of 1,000 units in June 2006.

In 2007, Dalian COSCO Shipbuilding Industry Co., Ltd. (DACOS) was established in Dalian City through joint investment from NACKS and COSCO Shipbuilding Industry Company (COSIC). Production facilities such as the first and second docks as well as the fabrication, block assembly and block paint shops were built on the new company's vast site measuring about 1.9 million square meters. Since then, the Kawasaki Group has been conducting shipbuilding operations at four different locations, including the Kobe Works, Sakaide Works, NACKS, and DACOS.*³

*1 Nantong COSCO KHI Ship Engineering Co., Ltd. changed its Chinese trade name slightly in 2018.

*2 A side thruster is a propulsion device (generally a screw propeller) installed within a tunnel built into the bow or stern of a ship below the waterline. It enables a vessel to turn or move sideways when maneuvering in port.

*3 DACOS was renamed Dalian COSCO KHI Ship Engineering Co., Ltd. in 2012 and its Chinese trade name was changed slightly in 2018.

[Plant Engineering]



Nantong COSCO KHI Ship Engineering Co., Ltd. (NACKS)



Wuhan Kawasaki Marine Machinery Co., Ltd. (WKM)



Dalian COSCO KHI Ship Engineering Co., Ltd. (DACKS)

Kawasaki joined hands with the Anhui Conch Group, the parent company of Asia's largest cement company, Anhui Conch Cement Co., Ltd., to establish two joint ventures in Wuhu, Anhui Province, Anhui Conch Kawasaki Engineering Co., Ltd. (ACK) in 2006, and Anhui Conch Kawasaki Energy Conservation Equipment Manufacturing Co., Ltd. (CKM) in 2007. ACK designed, procured, and sold waste heat recovery power generation systems for cement plants, and CKM manufactured PH boilers for waste heat recovery power generation systems needed to fill orders ACK received.

ACK steadily gained orders in China after combining the advanced technical capabilities of Kawasaki Plant Systems with the sales force and reliability of the CONCH Group and its expertise in local procurement and operations. Its products earned a good reputation among users and helped establish awareness of energy conservation and environmental protection among the Chinese public as a whole.

In July 2007, CKM started manufacturing PH boilers for waste heat recovery power generation systems at its 27,000-square-meter Plant 1. In 2008, CKM's second plant (measuring 18,000 m²) and third plant (measuring 27,000 m²) were completed to respectively produce highly efficient vertical cement mills and AQC boilers for waste heat recovery power generation systems and waste treatment facilities that can be added to existing cement plants.

[Precision Machinery]

In the 2000s, the Chinese market for hydraulic excavators became the largest in the global construction machinery industry with further growth on appearing on its horizon.

Operating against this backdrop, in December 2005, Kawasaki established Kawasaki Precision Machinery (Suzhou) Ltd. (KPM Suzhou), as a wholly owned subsidiary located in Suzhou, Jiangsu Province, to produce hydraulic components for construction machinery in China. The company kicked off full-scale production in 2011 with the completion of a new plant (with a total area of 13,500 m²) fitted with production lines transferred from the old plant and additional new facilities for increased production capacity. The new plant had an annual production capacity of approximately 110,000 units, including 60,000 hydraulic pumps and 50,000 hydraulic motors, double that of the old plant.

In August 2009, Kawasaki and China's Zhejiang Chunhui Group Co., Ltd. jointly established Kawasaki Chunhui Precision Machinery (Zhejiang) Ltd. (KCPM) in the Zhejiang Shangyu Economic Development Zone as a new production base for hydraulic components. By 2012, the company was producing 40,000 hydraulic pumps annually. In March 2011, Kawasaki Precision Machinery Trading (Shanghai) Co., Ltd. (KPM Shanghai) opened the CS Center in China to provide services for hydraulic construction machinery components, including products made by both companies. In China, where sales of hydraulic excavators increased sharply in 2010, from about 100,000 the previous year to about 170,000, Kawasaki's hydraulic components enjoyed the lion's share of the market.



The office where Anhui Conch Kawasaki Engineering Co., Ltd. (ACK) originally operated



Anhui Conch Kawasaki Energy Conservation Equipment Manufacturing Co., Ltd. (CKM) plant buildings



Kawasaki Precision Machinery (Suzhou) Ltd. (KPM Suzhou) when it was first launched



Kawasaki Chunhui Precision Machinery (Zhejiang) Ltd. (KCPM)



Overhauling hydraulic equipment at Kawasaki Precision Machinery Trading (Shanghai) Co., Ltd. CS



Kawasaki Motores do Brasil Ltda.(KMB)



India Kawasaki Motors Pvt. Ltd.(IKM)



Motorcycle dealer in China (Xi'an)

Paving Inroads into Motorcycle Markets in Brazil, India, and China

Kawasaki started selling its motorcycles in Indonesia, Thailand, Malaysia, and other Southeast Asian countries in the 1960s and 1970s. Sales of medium- and large-size motorcycles, which are Kawasaki's specialty, increased as the economies of these countries grew.

Later the company turned an eye to Brazil, India, and China as new markets for its motorcycles. In October 2007, it set up Kawasaki Motors do Brasil Ltda. (KMB) in Sao Paulo, Brazil and in October of the following year, began selling motorcycles that were imported from factories abroad. A Brazilian factory was built in Manaus in October 2009 and started knockdown production of Kawasaki's major medium and large size models, such as Ninja and Z series.

In India, India Kawasaki Motors Pvt. Ltd. (IKM) was established in July 2010 to import and sell motorcycles. The company commissioned Bajaj, a major local motorcycle manufacturer, to produce and sell the Ninja 250R. In February 2013, it established its own factory to begin full-scale production of the Ninja 300 as well as the Ninja 650. It then opened a dealership in September.

In China, Kawasaki started selling medium and large size models, including the Ninja ZX-14R, Ninja 650, Ninja 250, and Z250, through Kawasaki Heavy Industries Management (Shanghai), Ltd. in August 2013. In September 2016, it established Kawasaki Motors (Shanghai), Ltd. (KMSH) to independently operate the motorcycle business there. The company went on to open stores in major cities such as Shanghai, Beijing, and Chengdu.

Kawasaki aimed to put the motorcycle business in high gear by boosting sales in the maturing markets of Southeast Asia and cultivating the promising markets of Brazil, India and China.

3.

Corporate Social Responsibility and Environmental Management

1) Formulation of MTBP 2013

After looking back on the initiatives implemented under MTBP 2010 (FY2010–2012), Kawasaki formulated the medium-term business plan, MTBP 2013 (FY2013–2015), in April 2013 in light of the subsequent changes in the market. Since fiscal 2015, the final year of the plan, marked the halfway point of Kawasaki Business Vision 2020, the work to be done under the medium-term business plan was key to achieving the Group's vision.

MTBP 2013 focused on forging a foundation for the future and building a business structure designed to bend with any winds of change ahead, while steadily building on the progress made under MTBP 2010.

[Basic Objectives]

- (1) Ensure efficient business management to survive the severe business environment
- (2) Implement measures to reflect changing business environments
- (3) Implement specific measures to achieve the Vision
- (4) Promote earlier commercialization of new products and businesses
- (5) Aim to be a corporate group that enjoys sustainable growth, while contributing to the growth of society

[Key Policies and Measures]

—Efforts to expand business foundations—

- (i) Provide solutions
- (ii) Expand the range of existing businesses
- (iii) Accelerate global business development aimed at growth markets
- (iv) Encourage early commercialization of new products and businesses
- (v) Enhance the competitiveness of existing businesses

—Efforts to secure future revenue basis—

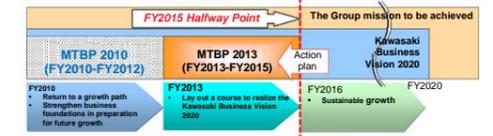
- (i) Promote R&D efforts and capital investments on a continuous basis
- (ii) Promote the sharing of intellectual properties and education to develop globally minded personnel, etc.

—Efforts to solidify the management system—

- (i) Reinforce the financial structure
- (ii) Increase the efficiency of the execution of common duties

2 Building a Stronger Kawasaki Brand

Strengthening the Kawasaki brand was one of the keys to achieving the Kawasaki Business Vision 2020. It entailed building up the Kawasaki Group's brand and communicating the value and mission of the brand both internally and externally in an easy-to-understand way, with an aim of building stronger ties with existing customers and expanding the customer base across the globe.



The Position of the FY2013-2015 Medium Term Business Plan "MTBP 2013"

[Quantitative Targets] (FY2015)

Net sales	1.6 trillion yen
Operating income	90 billion yen (Ratio of operating income to sales: 5.6%)
Recurring profit	85 billion yen (Ratio of recurring profit to sales: 5.3%)
Before-tax ROIC	11.0%

The Kawasaki Group faced several problems in implementing brand strategies, including: (1) lost opportunities with the target audience due to a low brand recognition and awareness in domestic and overseas markets (particularly in emerging markets); (2) lack of a common understanding of the value and intent of the Kawasaki brand within the company; (3) the need to develop a shared awareness of the Kawasaki brand among employees in order to offer comprehensive solutions that leveraged the collective know-how of all internal companies; and (4) lack of clear standards for unifying and distinguishing product brands of the motorcycle business and corporate brands. To solve these problems, it was necessary to develop a brand messaging system and tools.

Kawasaki adopted "Powering Your Potential"* as the group tagline in April 2013. It was a powerful phrase that clearly differentiated the Kawasaki brand from others in a way that was relevant to its target audience, conveying where the company was headed both internally and externally with integrity. The tagline embodied Kawasaki's aspiration to be the power that opens up new possibilities for customers and communities as it works to achieve its Group mission.

- * Powering: Empowering and fueling
- Your: Customers, society, and employees
- Potential: Possibilities, capabilities, and prospects for growth

3) Environmental Management Initiatives

Formulating Environmental Vision 2020

Kawasaki incorporated the Group's environmental management policy into the Kawasaki Group Mission Statement in 2007, and in 2010, established the Environmental Vision 2020 (What Kawasaki Should Be in the Year 2020). It was the company's medium- to long-term environmental vision that picked up where its Environmental Vision (What Kawasaki Should Be in the Year 2010), drafted in 2003, left off. After looking at the environmental trends in Japan and overseas, Kawasaki rooted its Environmental Vision 2020 in four basic objectives: achieving a low-carbon society, a recycling-oriented society, and a society coexisting with nature, while establishing environmental management systems that would serve as the spring boards for reaching these three goals.

Revising the Environmental Charter

In 2010, Kawasaki revised the environmental philosophy stated in its Environmental Charter to align it with its Environmental Vision 2020.

 **Kawasaki**
Powering your potential

 **Kawasaki**
Powering your potential

Group tagline

Environmental Philosophy

Kawasaki pursues business activities globally in key industries related to land, sea, and air, guided by the desire to contribute to the development of society and nations through *monozukuri* manufacturing. In this effort, we emphasize the "achievement of a low-carbon society," "achievement of a recycling-oriented society," and "achievement of a society coexisting with nature" to help solve global environmental issues, and we strive to help build a sustainable society through environmentally harmonious business activities and Kawasaki-brand products and technologies that help improve the global environment.

Climate Change Mitigation

In fiscal 2010, which was the last year of the 6th Environmental Management Activities Plan (FY2008–2010), Kawasaki launched the 7th Environmental Management Activities Plan (FY2010–2012) ahead of schedule to coordinate it with the formulation of a new business plan.

The 7th plan also marked the beginning of the company's trial and error efforts to accelerate measures against global warming in line with the Kyoto Protocol that came into force in 2005.

- **Utilizing the domestic carbon credit system**

In 2010, the Kawasaki Group participated in Hyogo Prefecture's partnership program aimed at reducing carbon dioxide (CO₂) emissions. Kawasaki was the first to work on a carbon reduction project under this program that made use of Japan's carbon credit system (currently the J-Credit Scheme). The Kawasaki initiative replaced the heavy oil-fired boiler used at the Kobe Medical Cooperative Association's Akashi plant with its natural gas-fired boiler. The project cut CO₂ emissions by approximately 2,600 tons over four years, which Kawasaki was able to credit as a reduction for all its facilities throughout Hyogo.

- **Buying a green power certificate**

In 2011, Kawasaki purchased a green power certificate (worth 18,300 kWh) and used the green power generated by a photovoltaic power generation system installed at the Kobe Municipal Resource Recycling Center's power plant to offset some of the electricity used at the Kobe Head Office.

Bringing a Low-carbon, Recycling-oriented Society Coexisting with Nature to Life

- **Product development leveraging the Kawasaki Group's collective capabilities**

Gigacell: Achieving high energy efficiency

The Gigacell is a high-capacity storage battery developed by Kawasaki in 2005. Featuring quick charging and discharging capabilities, it can level the gap between the electricity generated from renewable energy and the electricity consumed in distributed power generation systems over a wide range of durations, from a few hundredths of a second to several hours.



Gigacell



SWIMO low floor, battery-powered tram

In August 2006, a test run of the SWIMO low floor, battery-powered tram equipped with the Gigacell was conducted at Kawasaki's Hyogo-Works. The SWIMO is a ground breaking train that can run without the use of overhead wires.

In 2009, Kawasaki received the 2009 Minister of the Environment's Award for Outstanding Achievement in the Fight against Global Warming (technological development and commercialization category) for the superior energy efficiency of its Gigacell. The following year, Kawasaki won the Grand Prize in the 19th Global Environment Award (hosted by the Fujisankei Communications Group) for developing the SWIMO.

● **Green binary turbine: Effective use of low-temperature waste heat**

Most of the low-temperature waste heat (such as hot wastewater and exhaust gas) generated in factories, waste incinerators, sewage treatment plants, and power plants is discharged without being utilized. Kawasaki's green binary turbine released in June 2010 is a nice, neat, compact system that's designed to recover this low-temperature waste heat for generating electricity. In effectively utilizing the previously unused low-temperature waste heat to generate electricity, the system cuts CO₂ emissions dramatically.

● **Kawasaki Green Gas Engine: #1 in power generation efficiency**

The Gas Turbine & Machinery Company's gas engine project team and the Corporate Technology Division's Technical Institute worked together to develop the Kawasaki Green Gas Engine, incorporating Kawasaki's fluid analysis technology and more. The use of clean natural gas as a fuel as well as the engine's optimal combustion chamber design, leaner burn, and optimized control system significantly reduces the environmental impact. In July 2007, it achieved a world record-breaking power generation efficiency of 48.5% along with the world's highest level of environmental performance that boasted all-time low NOx emissions.



Green binary turbine



Kawasaki Green Gas Engine

4) CSR Initiatives

Establishment of the CSR Committee and CSR Department

In October 2006, Kawasaki established its CSR Committee, chaired by the president. It is the Kawasaki Group's top decision-making body for internal control and compliance. The committee makes sure the company toes the line in adhering to the basic principles of corporate ethics stipulated in the Kawasaki Heavy Industries Corporate Ethics Rules. Working to ensure internal control and compliance as well as appropriate financial reporting in light of the internal control reporting system to be adopted in fiscal 2008 under the Financial Instruments and Exchange Act, the company also established the CSR Department, a specialized organization overseeing the entire Group's effort to establish a system of internal controls.

The Kawasaki Group's Fundamental Approach to CSR

One of the goals set forth in the Kawasaki Business Vision 2020 formulated in April 2010 was to become "a company that places importance on CSR and is trusted wherever it does business around the world."

That same year, as Kawasaki moved forward to meet the needs of customers and "people everywhere today and tomorrow," it adopted the Kawasaki Group's Fundamental Approach to CSR along with the five themes, outlining the various goals it wanted to reach across the organization.

In April of the same year, and in the same vein as the organizational reforms involving CSR activities, internal controls, and internal audits, the CSR Committee was renamed the Corporate CSR Committee. The committee would discuss and decide on major CSR policies as well as other important matters with an eye to making Kawasaki's commitment to fulfilling its corporate social responsibility clear to all. The Compliance Committee was renamed the Company CSR Committee to reflect the expanded scope of its agenda, covering not only compliance but also overall CSR activities.

<Fundamental Approach to CSR>

The Kawasaki Group's CSR is reflected in our combined efforts to achieve the Group Mission on an even higher level.

We consider the future of human society and the global environment to be an extension of the increase in value of the Kawasaki brand, and promote the following five themes accordingly.

<Five Themes>

- (1) We will use our integrated technological expertise to create values that point the way to the future.
- (2) We will always act with integrity and good faith to merit society's trust.
- (3) We will all create a workplace where everyone wants to continue working.
- (4) We will pursue "manufacturing that makes the Earth smile."
- (5) We will expand the circle of contribution that links us to society and the future.

Kawasaki Named to DJSI for the First Time

In September 2013, Kawasaki was listed on the Dow Jones Sustainability Asia Pacific Index for the first time. The Dow Jones Sustainability Indices (DJSI) are leading benchmarks for ESG investing.* The U.S.-based S&P Global evaluates and selects companies for the DJSI on the basis of their corporate sustainability in economic, environmental, and social aspects. The DJSI is one of the most important investment criteria for investors around the world who are interested in companies' ESG initiatives.



Special feature on CSR in the company newsletter



As of 2021, Kawasaki has been listed on the DJSI Asia Pacific Index, covering companies in the Asia and Oceania region, for nine consecutive years.

* ESG investing encompasses not only traditional financial analysis but also looks at a company's environmental, social, and governance initiatives in order to analyze hidden risks and opportunities from a more in-depth perspective.

5) Aiming to Commercialize CO₂-free Hydrogen Energy Supply Chain

Following the announcement of its CO₂-free hydrogen energy supply chain project in the MTBP 2010 (FY2010–2012), Kawasaki conducted research and development toward its achievement and worked on demonstrating the technology as well as building a cooperative consortium with the aim of commercialization. The use of hydrogen, one of the cleanest energy sources that can be produced from fossil fuels, has been gaining momentum around the world. Under the CO₂-free hydrogen energy supply chain project, Kawasaki positioned hydrogen as an important energy option along with renewable energy. The project included plans to liquefy hydrogen, which was produced by gasifying and refining brown coal (an unused resource that is abundant in Australia), and transport it to Japan via liquefied hydrogen carrier. In order to achieve a CO₂-free hydrogen energy supply chain, Kawasaki needed to make core technologies and products for producing, transporting, storing, and using hydrogen seamlessly available throughout the supply chain from upstream to downstream.

In 2011, the company launched the Harima Project, in which it built a prototype liquefaction system (5 tons/day) and a demonstration plant at its Harima Works to test the technology in house. After repeated demonstration tests, the first Japan-made industrial hydrogen liquefaction system was successfully developed in September 2014. The company went on to conduct continuous operation and various functional tests using an improved liquefaction system to demonstrate its performance and reliability before completing the development process. In June 2020, it began selling the first hydrogen liquefier produced by a Japanese manufacturer.



Hydrogen liquefaction plant demonstration facility built at Harima Works

Using Cutting-edge Technology to Build a Brighter Future

2013–2018

In the year preceding the start of its MTBP 2013 medium-term business plan, Kawasaki saw orders increase across the board, with both net sales and profits in fiscal 2013 and 2014 growing substantially year on year. However, as orders increased, so did interest-bearing debt, while free cash flow dropped significantly. Kawasaki, then turned to Kawasaki-ROIC Management to save the day by boosting ROIC and core competencies at the business unit level. As a result, ROIC jumped to 10.4% in fiscal 2014, and both sales and profits reached record highs in fiscal 2015.

In April 2016, Kawasaki launched its MTBP 2016 (FY2016–2018) amid a slump in the Japanese economy triggered by declining foreign demand and sluggish consumer spending. The company allocated management resources primarily to the aerospace system, energy, robot, and other businesses that were expected to grow significantly in the medium to long term. In 2018, it reorganized three internal companies operating aerospace and energy-related businesses into two in order to generate greater synergy through the integration of their technologies. It also bridged the boundaries of internal companies to pioneer new product technology.

In the 2010s, companies were feeling the pressure to address energy and environmental issues, strengthen governance, promote diversity, transform the way employees worked, and more. The Kawasaki Group promoted environmental management aimed at achieving a sustainable society, invited in outside directors, and instituted work style reforms with the input of all employees.

1.

Reforming the Management Structure

1) Inauguration of Shigeru Murayama as President

At its extraordinary meeting held on June 13, 2013, the Board of Directors unanimously passed a resolution to dismiss three directors from the positions of president, senior executive vice president, and senior vice president respectively and reappoint them as directors under the supervision of the president. The Board determined that these three persons were not qualified to play a central role in the management of the company. It believed their arbitrary management decisions neglected the majority view of the Board and were in misalignment with what the Board considered good corporate governance. During the same meeting, the Board also passed resolutions to terminate negotiations regarding a merger with Mitsui Engineering and Shipbuilding Co., Ltd. as well as to revamp the management structure. It was then that Shigeru Murayama, Senior Vice President, was appointed as the new president.

At a meeting of the Board of Directors held after the annual general meeting of shareholders on June 26, Murayama, who was re-elected president, urged employees to embrace a free and open corporate culture. He said, "As companies become increasingly globalized, the public is making greater demands on them in terms of corporate social responsibility and compliance. It is vital that we continue to question what enterprise value means from these perspectives as well, as we move forward to further enhance our Group's enterprise value."

2) Appointing Outside Directors

Kawasaki appointed its first outside director in 2013. Since then it has worked to bolster the external supervisory function of outside directors, who have no vested interest in the company, with the aim of enhancing management transparency and objectivity. Outside directors from various backgrounds attend Board of Directors meetings and provide opinions and advice on the Kawasaki Group's business operations from an independent standpoint, thereby strengthening its supervisory function. They also actively participate in and provide advice on the company's management by chairing the Nomination Advisory Committee and the Compensation Advisory Committee, which will be discussed later.

The first person to be appointed outside director in June 2013 was Yoshihiko Morita. Having served as the president of the Japan Institute for Overseas Investment, a corporate auditor of Tokyo Gas Co., Ltd., and an advisor at Sumitomo Mitsui Banking Corporation, Morita provided input drawn from his wealth of international experience and financial expertise.

After that, Kawasaki decided to appoint two outside directors in June 2015, and later increased the number of outside directors to three in June 2018.



Message from President Murayama in the company newsletter

3) Introducing the Position of Fellow

In April 2014, Kawasaki created the position of fellow. It is the highest professional rank one can achieve. Employees with outstanding knowledge and expertise, mainly in a technical field, who have contributed to improving the company's business performance and enterprise value are appointed fellows and accorded the same treatment as an executive officer.

The introduction of this position was designed to boost employee morale as well as instill a desire to become a fellow that would serve as a shining star for all to follow. It would be the foundation for taking professionalism to new heights.

4) Strengthening the Energy and Environmental Engineering Business

Kawasaki's energy plant business started to see the entire business unit's product profit margin tank in fiscal 2012 and go on to suffer a recurring loss in fiscal 2013. In order to improve its performance, Kawasaki consolidated the business unit and transferred common back-office operations being conducted at the Tokyo head office to Kobe in a move to strengthen and streamline the organizational functions of the company. This major organizational shift was the culmination of a series of reform initiatives, focusing on four areas (awareness, operations, organization, and products), that had been ongoing since the spin-off in 2005.

Kawasaki needed to strengthen the energy plant business in order to build a stronger foundation in the energy and environmental engineering sector, which was designated as a focus area in the Group Management Model 2018 formulated in October 2014. That meant integrating it into other Plant & Infrastructure Company divisions in Kobe.

Out of 369 employees at the Tokyo Head Office, a total of 239, including 123 senior executives and 116 general employees, were transferred to the Kobe Works in April 2015.

5) Behind the Shareholder Derivative Suit

In September 2012, the Tokyo District Public Prosecutors Office conducted an investigation into a violation of the Act on Elimination and Prevention of Involvement in Bid Rigging, etc. and Punishments for Acts by Employees that Harm Fairness of Bidding, etc. in connection with the development of a new multi-purpose helicopter (UH-X) for which Kawasaki won a contract from the Ministry of Defense in March 2012. In the end no charges were filed against Kawasaki and its associates. However, the company was suspended by the Ministry of Defense for two months from July 31, 2013 for inappropriate conduct during the bidding process.

In connection to this matter, one of Kawasaki's shareholders filed a shareholder derivative suit against a director and a former director of Kawasaki in July 2014, demanding compensation for damages.

The shareholder claimed that the defendants were negligent in either knowingly breaking the law, overlooking any misconduct, or tacitly condoning a violation of the law. The plaintiff demanded damages in the amount of 4,628 million yen in total for the loss caused by the invalidation of the contract, etc. resulting from the criminal investigation.

Having determined that the defendants were not derelict in their duty as alleged by the plaintiff, Kawasaki decided to join the defendants in this lawsuit to assist them in clarifying, among other things, that there were no deficiencies in the company's management.

The lawsuit was concluded at the Kobe District Court in October 2019, with a ruling against the plaintiff. The plaintiff lost his rights as a shareholder and the lawsuit was dismissed, effectively handing a victory to the two defendants.

2. To Become a Truly Global Company



Explanation of the MTBP 2016 in the company newsletter

1) Formulation of MTBP 2016

In fiscal 2015, the final year of the MTBP 2013 medium-term business plan, the Kawasaki Group earned 1,541 billion yen in net sales, 95.9 billion yen in operating income, and 93.2 billion yen in recurring profit, with all figures hitting record highs. Although sales and before-tax ROIC fell slightly short of the targets set in the medium-term business plan, operating income and recurring profit both exceeded the set targets.

Following this achievement, Kawasaki launched the MTBP 2016 medium-term business plan in April 2016. The company reaffirmed the goals spelled out in the Group Mission and Group Vision statements, and set specific strategies and quantitative targets for the next three years while painting a picture of how the business should look ten years down the road.

[Basic Policy]

(1) Further progress on Kawasaki-ROIC Management

- All employees engaged in Kawasaki-ROIC Management: Set KPIs* that contribute to improving enterprise value based on the characteristics of each business segment.
 - Enhance risk management position: Ensure risk management at each phase of the project in order to take the next step as quickly as possible.
- * *Key performance indicators (KPIs) are quantitative metrics used to evaluate progress in reaching business goals.

(2) Investments targeting medium- to long-term growth

Continue to aggressively make capital investments and conduct R&D for medium- to long-term growth, as done under the previous mid-term plan.

(3) Business realignment

- Ship & Offshore Structure Business: (1) Maximize profits through integrated operation of Sakaide Works and NACKS/DACKS; (2) Achieve stable business activities at Kobe Works by focusing on submarine-related operations; (3) Shrink the offshore service vessels business
- Hydraulic Machinery Business: (1) Make Kawasaki the top brand in the hydraulic market; (2) Develop business beyond excavators, to construction and agricultural machinery; (3) Seek synergies and enhanced efficiency through integrated operations with the Robot Division

[Financial Strategy]

Increase operating cash flow to aggressively make investments for future growth, return profits to shareholders, and strengthen the company's financial position all with an aim for medium- to long-term growth.

[Quantitative Targets] (FY2018)

Net sales	1.74 trillion yen
Operating income	100 billion yen (Ratio of operating income to sales: 5.7%)
Recurring profit	97 billion yen (Ratio of recurring profit to sales: 5.5%)
Before-tax ROIC	11.0%

2) Inauguration of Yoshinori Kanehana as President

In June 2016, Kawasaki's president, Shigeru Murayama, became its chairman, and Yoshinori Kanehana, its senior executive vice president, became president. In his inaugural address, Kanehana, who took over the reins on the occasion of Kawasaki's 120th anniversary, said, "I believe it is my mission to ensure the sustainable growth of our Group so that we can continue to be a company that inspires our employees and makes them proud. I will carry the torch that has been handed to me by President Murayama and pass it on to the next generation in an unbroken chain that over the years has linked us to the philosophy espoused by our founder, Shozo Kawasaki, of 'contributing to the nation—to society—through expertise.'" The new leader pledged to steadily implement various measures that would enable the Kawasaki Group to continue to grow in the years following its 120th anniversary.



Chairman Murayama (left) and President Kanehana (right)

3) Taking Kawasaki-ROIC Management to New Heights

The Kawasaki Group has been promoting its own ROIC management since fiscal 2000, with a focus on striking the optimal balance between enterprise value, employee value, and customer value, while making the most of the various types of technology and intellectual strengths it has cultivated through its wide-ranging businesses encompassing land, sea and air transportation systems, energy and environmental engineering, and industrial equipment. As a result, the company's operations have remained strong, and the total free cash flow (operating cash flow + investing cash flow) increased by 140 billion yen from fiscal 2001 to fiscal 2007, while interest-bearing debt of 420 billion yen was reduced to 280 billion yen. The company began to see its ROIC management efforts bear fruit around 2006 as the financial performance of each business segment started to recover and grow.

Subsequently, however, due in part to growing economic bubbles in emerging markets triggered by monetary easing measures implemented in the wake of the Lehman Brothers collapse, the company changed its management course toward expanding operations. This shift was accompanied by a renewed increase in interest-bearing debt resulting in a significant deterioration of free cash flow by the end of fiscal 2012. In response, the company decided to focus on ROIC management from June 2013 onward. It aimed at improving ROIC and core competencies (competitive advantages) at the business unit (BU) level, in order to enhance its enterprise value. Emphasis was placed on strictly applying a hurdle rate of 8%, enhancing risk management, and using KPIs.

The objectives of ROIC management were to leverage Kawasaki's advantages as a conglomerate and ensure stable operations via BU portfolio management, focus on capital cost management by thorough control of the balance sheets of each BU, and enhance core competencies while fostering growth-inducing synergy. The company allocated more business resources to BUs with higher investment efficiency. In addition to that, it identified hurdles and issues facing each BU in their markets, growth potential, core competencies, etc. as well as their financial challenges and enlisted the support of the entire company to achieve its targets.



President Kanehana's 2017 New Year's address in the company newsletter



Explanation of Kawasaki-ROIC Management in the company newsletter

The company also sought to enhance enterprise value by leveraging the synergy created from combining businesses across internal company boundaries.

As a result, free cash flow improved significantly, and before-tax ROIC, which was 8.1% in fiscal 2013, increased to 10.4% in fiscal 2014. Furthermore, the company achieved the goal of reaching a net debt-to-equity (D/E) ratio* of 100% by fiscal 2015 in fiscal 2014, a year ahead of schedule. Under the MTBP 2016 medium-term business plan, the company set fiscal 2018 quantitative targets of a before-tax ROIC of 11% and operating income of 100 billion yen.

*Net D/E Ratio = (Interest-bearing liabilities as of previous fiscal year-end - Cash and cash equivalents as of previous fiscal year-end)/Equity as of the previous fiscal year-end × 100

4) Kawasaki Celebrates Its 120th Anniversary

Kawasaki marked its 120th anniversary on October 15, 2016 with various commemorative events.

In January of the same year, the company unveiled a 120th anniversary logo. Combining the kanji character for “kawa” and the number 120 in the base colors of gold and silver, the logo design visualized a symbol of trust backed by history and tradition. The logo was used for public relations activities to further enhance Kawasaki’s corporate brand value as well as to express gratitude to its stakeholders.

On October 14, 2016, Kawasaki hosted its 120th anniversary celebration at the Kobe Portopia Hotel. The event was attended by Kawasaki executives, directors, former executives, presidents of domestic affiliates, representatives of the Kawasaki labor union (head office and branch office executive committee members), and members of the prefectural and city assemblies (who were former Kawasaki employees).

On the following day of October 15, “Kawasaki Heavy Industries 120th Anniversary Exhibition: Passion and Pride for Being the Fastest in the World” opened at Kobe Port Terminal Hall. The exhibition featured photo panels of Kawasaki products that had been behind the development of modern industries in Japan over the last 120 years. It also showcased a restored model of the Hien, a fighter aircraft developed and manufactured by Kawasaki Aircraft Co., Ltd. for the Imperial Japanese Army during World War II. Over 44,000 people attended the exhibition, which ended on a high note on November 3. From September 17 to November 27, the Kobe City Museum held the “Matsukata Collection Exhibition—Tracing the Dream of Kojiro Matsukata,” bringing together a large collection of ukiyoe and Western art that Kawasaki’s first president, Kojiro Matsukata, had collected at his own personal expense.



120th anniversary logo



Restored Hien fighter aircraft on display at the Kawasaki Heavy Industries 120th Anniversary Exhibition

5) Establishing a Companywide Quality Control Committee

On December 11, 2017, a crack was found in the bogie frame of the series N700 Shinkansen train manufactured by Kawasaki at Nagoya Station on the Tokaido Shinkansen line. This was the first serious incident of its kind involving the Shinkansen.

This bogie frame was manufactured at the Kawasaki Rolling Stock Company’s Hyogo Works in February 2007. The investigation results found that the crack was caused by manufacturing defects.

In April 2018, Kawasaki established the Companywide Quality Control Committee with outside experts to investigate the causes of the manufacturing defects and discuss measures to prevent their recurrence. The company also put together an investigative team consisting of internal and external experts that answered to the committee.

Based on the findings of the investigative team, the Companywide Quality Control Committee identified the problems and hammered out the corrective measures to take. The implementation of corrective measures at the Rolling Stock Company was regularly monitored by the Management Committee and supervised by the Board of Directors.

The results of the investigation conducted by the Companywide Quality Control Committee revealed that manufacturing defects were due to vulnerabilities in quality control and management. There was too much reliance on the manufacturing lines and not enough risk management to prevent defects.

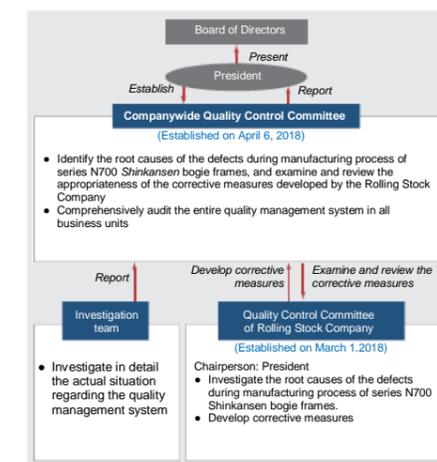
Kawasaki took the investigation results seriously, and in September 2018, announced that it would (1) review work processes, (2) tighten risk management, (3) promote close cooperation and communication between related departments, and (4) review the internal education and training curriculum as corrective measures to enhance quality management and prevent any recurrence. In order to make sure these efforts took root throughout the company, Kawasaki decided to introduce total quality management (TQM) and set up the Companywide Quality Committee to implement it.

6) Reorganizing Internal Companies

Priority Allocation of Company Resources and Promotion of Synergies

In following the Business Portfolio Strategy outlined in the MTBP 2016 medium-term business plan, Kawasaki allocated extensive management resources to businesses that displayed significant growth potential in the medium to long term, such as aerospace systems, energy solutions, and robots. The company also worked on maximizing synergy and accelerating growth through integrated operations of the aircraft fuselage and jet engine businesses as well as various energy-related businesses. In fiscal 2017, the Kawasaki Group’s sales reached a new record high due to increases in sales in the precision machinery, gas turbine and machinery, and motorcycle and engine businesses. The ROIC, however, hit 3.9% due to the impact of an extraordinary loss caused by the termination of a shipbuilding contract for a Norwegian offshore service vessel, falling below the Group’s hurdle rate of 8% for the next two consecutive years of fiscal 2016 and 2017.

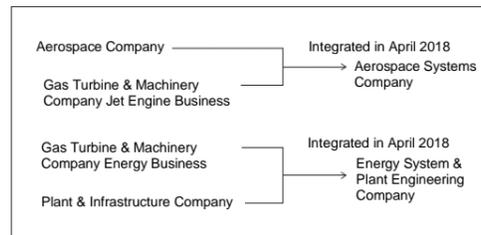
Kawasaki responded to these changes in the business environment in April 2018 with the introduction of Kawasaki-ROIC Management and the reorganization of three internal companies, in the growth areas of aerospace and energy, into two.



Functions and Relationship of Committees

Priority allocation of company resources	Four business sectors	
	Aerospace System	Energy/ Environment Plant
Pursuing group synergy	Aerospace Jet Engine	Plant & Infrastructure Gas Turbine & Machinery
Reorganization	Precision Machinery/Robot	Transportation
	Hydraulic Component	Ship & Offshore Structure
	Robot	Rolling Stock Motorcycle & Engine

Business Portfolio Strategy



Reorganizing three internal companies into two

Establishing the Aerospace Systems Company

In the area of aerospace, Kawasaki merged the Aerospace Company and the Gas Turbine & Machinery Company's jet engine business into the Aerospace Systems Company. In streamlining the organization, the company aimed to strengthen its global cost competitiveness and create new businesses through the integration of technologies. It also stipulated operational rules for production and quality control systems, which previously existed in both companies, to facilitate manufacturing operations.

Establishing the Energy System & Plant Engineering Company

In the area of energy, Kawasaki integrated the Gas Turbine & Machinery Company's energy business and the Plant & Infrastructure Company into the Energy System & Plant Engineering Company. The establishment of the new internal company was designed to incorporate energy-related products and technologies into optimum energy systems that could meet a world of customers' needs.

Precision Machinery Company Renamed Precision Machinery & Robot Company

In the robot business, the Precision Machinery Company was renamed the Precision Machinery & Robot Company with an aim to expand operations even further.

The robot business, which was poised to take off, needed more design and production space. While Kawasaki had a showroom at its Nishi-Kobe Works, it used the Akashi Works for pre-delivery inspections by customers.

The solution to these problems that Kawasaki came up with included transferring the factory automation and clean robot divisions of the Akashi Works to the Nishi-Kobe Works between fiscal 2016 and 2017. Of the 456 employees at the Akashi Works, 92 employees, including senior executives, were transferred to the Nishi-Kobe Works in October 2016, and 40 employees, including senior executives, were transferred in October 2017.

7) Trends at Overseas Locations

KMM Begins Aircraft Parts Production

In 1975, KMC began mass production of motorcycles at its Lincoln Plant in the U.S. Kawasaki Motors Manufacturing Corp., U.S.A. (KMM), which was split off from KMC in December 1981, opened a rolling stock factory at its Lincoln Plant in 2001. It is the Kawasaki Group's only overseas production base that manufactures products for multiple internal companies.



Kawasaki Motors Manufacturing Corp., U.S.A.(KMM)
Lincoln Plant rolling stock production line

In May 2017, KMM completed a production line for the cargo doors of the Boeing 777X, Boeing's newest commercial airliner. It was the first aircraft parts production line operated by a Japanese manufacturer in the United States, and full-scale operation kicked off in autumn of the same year. Kawasaki seized this opportunity to position the Lincoln Plant as a major production base for aircraft parts in the United States and has been working to expand its commercial aircraft business ever since.

Boosting Motorcycle Sales in Southeast Asia and Establishing a Sales Company in Vietnam

Kawasaki's motorcycle sales are growing year by year in countries throughout Southeast Asia.

Annual motorcycle production at Kawasaki Motors (Phils.) Corporation (KMPC) in the Philippines skyrocketed in just three years as it jumped from 170,000 in 2017 to 250,000 in 2020. This includes the BARAKO II, an overwhelmingly popular model used as the motorized element of the tricycle (a three-wheeled taxi consisting of a small motorcycle and a sidecar). This was the highest production volume of any factory operated by the Motorcycle & Engine Company in the world.

The motorcycle market in Vietnam is expected to keep pace with the country's economic growth. Sales exceeded 3.3 million units in 2018, trailing just behind China, India, and Indonesia. In January 2019, Kawasaki established Kawasaki Motors Vietnam Co., Ltd. (KMV) to import and sell motorcycles. The company is Kawasaki's twelfth overseas motorcycle sales subsidiary.

Accelerating Global Expansion of Robot Business

In the 2000s, China's robot market expanded quickly in step with the country's rapid economic growth. In 2006, the Kawasaki Group established Kawasaki Robotics (Tianjin) Co., Ltd. (KRCT) in Tianjin. Kawasaki's first robot business location in China, KRCT built and delivered robots to major Japanese automaker's factories in China. In 2013, Kawasaki Robotics (Kunshan) Co., Ltd. was established to promote local production and consumption. In 2015, Kawasaki Precision Machinery (Suzhou) Ltd. (KPM Suzhou) began manufacturing robots. The company worked to improve production efficiency based on the concept of robots making robots.



Aircraft parts production line at Lincoln Plant



Production line at Kawasaki Motors (Phils.) Corporation (KMPC)



Kawasaki Motors Vietnam Co., Ltd.
(KMV) office building



Exterior view of Kawasaki Robotics (Tianjin) Co., Ltd.
(KRCT) when it first opened



Opening ceremony of Kawasaki Robotics (Tianjin) Co., Ltd. (KRCT) Kunshan Branch [currently Kawasaki Robotics (Kunshan) Co., Ltd. (KRCK)]



Robot factory at Kawasaki Precision Machinery (Suzhou) Ltd. (KPM Suzhou)



Robot sales office of Kawasaki Heavy Industries (India) Pvt. Ltd.

In the same year, Kawasaki (Chongqing) Robotics Engineering Co., Ltd. (KCRE) was established in Chongqing, the world capital for electronics manufacturing services (EMS). In addition to manufacturing and selling robots, KCRE expanded into the production line building business, handling everything from design to the start-up of factory assembly lines for automobile manufacturers. Kawasaki established locations across Asia, from South Korea to Taiwan and Thailand. In Singapore, it launched the Singapore Kawasaki Robot Center (SKRC) in 2014 to provide after-sales services, and in 2017, the Singapore Kawasaki Robot Engineering Center (SKRE) to provide support for industrial robot applications development and training for engineers. In 2015, Kawasaki established a robot division (KIRD) at its Indian subsidiary, Kawasaki Heavy Industries (India) Pvt. Ltd. In the United States, a local subsidiary of Mediaroid Corporation, a joint venture between Kawasaki and Sysmex Corporation, which has a broad network in the medical field, began operating in Silicon Valley in 2016. The company works jointly with Mediaroid on medical robot technology development, marketing activities, and regulatory affairs for approval by the U.S. Food and Drug Administration (FDA), with the aim of expanding the sales of medical robots. Since the 2010s, the Kawasaki Group has been accelerating the introduction of robots around the world that contribute to a wide range of industries.

3.

Toward the Sustainable Development of the Group (Harmonious Coexistence with Stakeholders)

1) Corporate Governance

Basic Stance on Corporate Governance

The Kawasaki Group has established a corporate governance system that is suitable for a corporate group that operates globally, with directors and corporate auditors playing central roles.

Kawasaki believes corporate governance can raise enterprise value through effective and sound management while forming solid relationships with all stakeholders through highly transparent management practices.

Establishment of the Nomination Advisory Committee and Compensation Advisory Committee

In May 2015, Kawasaki established the Nomination Advisory Committee and the Compensation Advisory Committee as advisory bodies to the chairman of the Board of Directors. With chairs and a majority of members who are outside corporate officers, the committees are designed to improve the transparency and objectivity of board decisions.

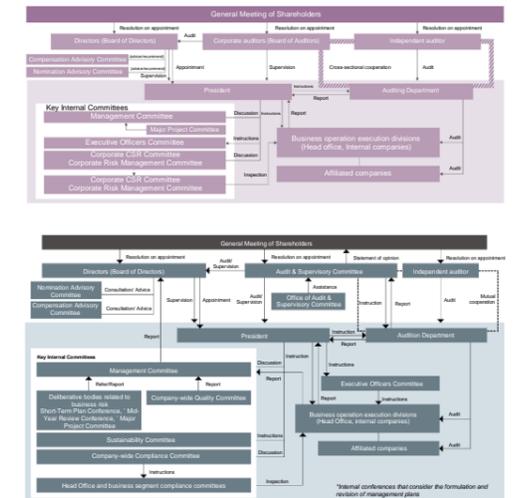
The Nomination Advisory Committee deliberates on the appropriateness of policies and proposals for the election of corporate officers while the Compensation Advisory Committee deliberates on the appropriateness of executive compensation policies and plans. Both committees then report to or advise the Board of Directors.

Revising the Director and Executive Officer Positions

On April 1, 2018, Kawasaki revised the director and executive officer positions in order to separate the supervisory and monitoring function of the Board of Directors from its execution function with an eye to further strengthening corporate governance.

- (1) With the exception of the chairman, vice chairman, and president, the company would no longer appoint managing directors but appoint representative directors and directors instead.
- (2) The positions of president, senior executive vice president, executive vice president, and senior vice president were respectively changed to president and chief executive officer, vice president and senior executive officer, senior managing executive officer, and managing executive officer positions.

The company also increased the number of outside directors by one in order to strengthen the board's ability to oversee business operations.



Kawasaki's Governance Structure (Top: As of June 25, 2015, Bottom: As of June 25, 2021)



Cumulative number of visitors to Kawasaki Good Times World reaches three million



Kids science class in Minami-sanrikucho, Iwate Prefecture



Kawasaki Robostage



Participating in Hyogo Prefecture's forest conservation activities



Participating in Team Tyura Sango

2) Establishment of the Social Contribution Activities Policy

In November 2018, Kawasaki established the Kawasaki Group Social Contribution Activities Policy in order to clarify its official position regarding community engagement and its impact. Kawasaki is a good corporate citizen committed to fulfilling its corporate social responsibility through engagement and coexistence with local communities with a focus on the following areas.

- (1) The Kawasaki Group, as a corporate citizen, constructs a good relationship with local communities and contributes to their development.
 - Operating Kawasaki Good Times World
 - Operating the Kawasaki Good Times Foundation in the U.S.
 - Donating money and Kawasaki products to aid victims and areas hit by disasters around the world
- (2) The Kawasaki Group supports the next generation who lead the technology of the future.
 - Hosting science classes for elementary school students
 - Participating in the Youngsters' Science Festival that provides elementary, junior high, and high school students with opportunities to experience the fun of science
 - Operating Kawasaki Robostage, where visitors can experience the cutting-edge technology and know-how behind Kawasaki robots
- (3) The Kawasaki Group preserves the environment and achieves a sustainable society.
 - Conducting forest protection and restoration activities via Kochi Prefecture's afforestation project, Hyogo Prefecture's corporate forest restoration project, etc.
 - Participating in Team Tyura Sango activities to restore coral reefs in Onna-son, Okinawa Prefecture

3) Sustainability and SDG Initiatives

Establishing a Code of Conduct

The Kawasaki Group drafted the Kawasaki Corporate Code of Ethics in 1999 and the Global Business Ethics Guidelines for its overseas subsidiaries in 2011 to ensure total compliance. In an effort to get everyone across the Group on the same page, Kawasaki set forth the Kawasaki Group Code of Conduct in September 2017. It is the Kawasaki Group's ethics bible to be followed religiously by all officers and employees.

Focusing on corporate and societal rules, section 1 of the Code of Conduct, entitled "In Order to Ensure Correct Conduct," covers twelve areas that are strictly regulated around the world (including fair business practices, prohibition of improper gifts and entertainment, information security, and personal information protection). Section 2, entitled "In Order to Face Stakeholders," covers ten areas related to the Kawasaki Group's responsibilities and ethical duties to society and its stakeholders (which includes providing safe, top-quality, high-performance products and services, respecting human rights, ensuring a safe and healthy work environment, and protecting the global environment). As of April 2021, the Code of Conduct has been published in ten different languages (i.e. Japanese, English, simplified and traditional Chinese, Korean, Thai, Indonesian, Portuguese, German, and Russian) and distributed to employees around the world.

Identifying Material Issues

Today stakeholders are demanding companies be more responsible than ever for the impact their operations have on the environment while keeping pace with changes in society. The Kawasaki Group took heed of those demands, and in 2018 reassessed how its corporate activities would affect society and the environment. For the first time ever, it pinpointed social issues and material issues it should address so that it could develop and implement business strategies with these issues in mind. The company divided its material issues into the two broad categories of social value created through its business and the foundation of its business activities. This move was aimed at stepping up efforts to solve issues facing society through products and services and address CSR issues such as corporate governance, supply chain management, compliance, and human rights.

Following the formulation of the Group Vision 2030, the company reassessed materiality and identified its material issues in 2021 (see the figure on the right). The company has set KPIs for the identified material issues and designated departments responsible for steadily implementing necessary measures and follow-up activities to achieve targets.

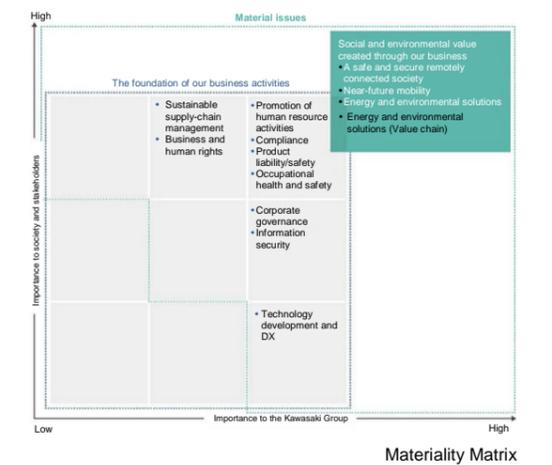
In 2021, the Sustainability Committee and the Company-wide Compliance Committee, chaired by the president, were established in place of the Corporate CSR Committee in order to address the growing importance of sustainability worldwide against the backdrop of intensifying climate change due to global warming, and to further strengthen compliance in corporate activities.

Efforts to Achieve SDGs

The Sustainable Development Goals (SDGs) were adopted by all 193 UN member states at the United Nations summit held in September 2015. The SDGs are composed of 17 goals to be achieved by 2030 that address eradicating poverty, inequality, injustice, and fighting climate change, along with 169 specific targets aimed at achieving them.



Kawasaki Group Code of Conduct



Social and environmental value created through our business			
	Safe and secure remotely connected society	Near-future mobility	Energy and environmental solutions
Scope of initiatives	Suppliers	Kawasaki Group	Customers
Especially important matters going forward (matters having an increasing impact on future long-term conditions)	Energy and environmental solutions (value chain)	Decarbonization	Improvement of resilience to climate change
	Business and human rights	Effective use of resources	Implementation of human rights due diligence
	Promotion of human resource activities	Personal system reform and human resource development	Promotion of diversity
	Technology development and DX	Co-creation intellectual property strategy toward new business creation	Open innovation
Matters given importance and new and to be steadily strengthened going forward	Product liability/safety	Compliance with the Kawasaki Group CSR Procurement Guidelines	Product liability/safety
	Compliance	Anticorruption measures	Strengthening of production security
	Occupational health and safety	Strengthening of information security	Strengthening of cyber defense
	Information security	Personal information protection	Corporate governance (all mechanisms to be improved as business foundations)

KHI Group Crisis Management System

Created Social and Environmental Value	Applicable SDGs			
A safe and secure remotely connected Society	3 GOOD HEALTH AND WELL-BEING	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	17 PARTNERSHIPS FOR THE GOALS
Near-future mobility	3 GOOD HEALTH AND WELL-BEING	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES	17 PARTNERSHIPS FOR THE GOALS
Energy and environmental solutions	7 AFFORDABLE AND CLEAN ENERGY	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	13 CLIMATE ACTION	17 PARTNERSHIPS FOR THE GOALS	

Kawasaki Group's Approach to the SDGs

Corporations are also required to contribute to solving issues facing the world through their business activities. The Kawasaki Group's mission statement, "Kawasaki, working as one for the good of the planet" and the SDGs have a strong affinity. Kawasaki is working to do its share in achieving the SDGs and believes that it can make a significant contribution toward achieving them. When looking at its material issues in 2018, Kawasaki identified the corporate group's most important long-term goal as creating social value through its business operations. In light of that goal, it picked the SDGs it should contribute to achieving and set non-financial targets for 2030. The company revised these targets when it reassessed materiality in 2021. While regularly disclosing the progress toward achieving the targets, the company aims to maximize social value and sustainable growth, while contributing to the achievement of the SDGs.

Establishing a Human Rights Policy and Joining the United Nations Global Compact

As its value chain was expanding worldwide in step with the globalization of its operations, Kawasaki established the Kawasaki Group Human Rights Policy in 2019, recognizing the growing importance of respect for human rights in corporate activities. The Human Rights Policy states that it is essential that the human rights of all stakeholders be fully respected in order to achieve the Group Mission and that all Kawasaki Group employees must act in accordance with the highest of ethical standards. It stipulates that the Group will actively outline Kawasaki's commitment to actively addressing the key areas of human rights, including diversity, equal opportunity, forced labor, child labor, discrimination, harassment, freedom of association and collective bargaining rights, and occupational health and safety, in fulfilling its responsibility to respect all human rights.

Following the establishment of the Human Rights Policy, Kawasaki signed and joined the United Nations Global Compact (UNGC) in January 2020. The UNGC is a global initiative calling on leaders of private companies and organizations to solve social issues and achieve sustainable growth in the face of global conflicts, poverty, and widening disparities caused by economic globalization. As a signatory company, Kawasaki supports the ten principles advocated by the UNGC in the four areas of human rights, labor, environment, and anti-corruption, and continues to work towards their achievement.



UN Global Compact membership certificate

4) Addressing Climate Change Risks and the Coming Decarbonized Society

Promoting Kawasaki Green Products

Since June 2014, the Kawasaki Group has evaluated its own products, designated those with superior environmental performance as Kawasaki Green Products, and made a list of these products public. Once selected, they are re-evaluated every three years to determine whether they will remain listed as Kawasaki Green Products. The first set of Kawasaki Green Products included ten products, of which nine were Kawasaki Super Green products boasting the industry's most outstanding environmental performance. The list of Kawasaki Green Products has been announced annually since then.

The 9th Environmental Management Activities Plan (FY2016–2018)

In the 9th Environmental Management Activities Plan, Kawasaki picked up where the 8th Environmental Management Activities Plan left off and continued to focus on aligning its business management with environmental management. The company also placed an emphasis on responding to the diversification of procurement associated with energy liberalization, coordinating with Japan's nationally determined contributions (NDCs) that were adopted after being presented at the 21st session of the Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change, and ensuring appropriate disclosure and transparency of environmental information to institutional investors, corporate evaluation agencies, and others. Moving forward to achieve its Environmental Vision 2020, the company worked to improve its environmental brand by promoting Kawasaki Green Products and focusing on four key issues: (1) reducing CO₂ and energy costs; (2) promoting the 3Rs; (3) reducing environmentally hazardous substances and conserving resources; and (4) enhancing the Group's environmental management system.

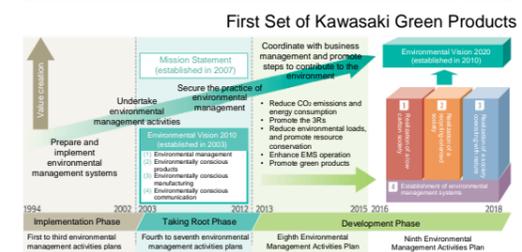
Formulating the Kawasaki Global Environmental Vision 2050

Pledging to achieve a sustainable society in the future, the Kawasaki Group formulated Kawasaki Global Environmental Vision 2050 in August 2017.

At this time the Paris Agreement following COP21, the UN SDGs, and other global measures to combat global warming were coming into effect, and corporations, public pension funds, and institutional investors in Europe and the United States began to move aggressively to reduce greenhouse gases, especially CO₂. Leading Japanese companies, including Toyota Motor Corporation, followed suit with long-term visions and public disclosures of long-term environmental management strategies.

CO₂ FREE

- Aim for zero CO₂ emissions in business activities
- Provide products and services that greatly curb CO₂ emissions



Kawasaki Group's Environmental Management Activities



Explanation of Kawasaki Global Environmental Vision 2050 in the company newsletter



Takumi Juku, a professional skills training center



Manabiya, a manufacturing skills creation center at the Akashi Works



Employee training at Manabiya

Waste FREE

- Aim for zero waste emissions in business activities
- Thoroughly enforce conservation and the recycling of water resources

Harm FREE

- Aim for zero harmful chemical substance emissions in business activities
- Develop business with respect for biodiversity

The Annual Report on the Environment in Japan 2020 highlighted frequent natural disasters and used the term "climate crisis" to refer to climate change risks. Social demands for a decarbonized society gradually increased, as evidenced by the 2017 TCFD recommendations (which was endorsed by Kawasaki in 2019).

5) Nurturing a Vigorous Workplace Culture

Efforts to Strengthen On-site Capabilities

• **Opening Takumi Juku and Manabiya skills training centers**

Kawasaki opened training centers to actively pass down technical skills with an eye to strengthening its manufacturing capabilities that are the business foundation of its corporate group.

In March 2012, Takumi Juku, a professional skills training center, was completed at the Harima Works. The center offers various skill development programs for young and mid-career workers, educational training for trainees and new employees, and production technology education for engineers. It serves as a facility that teaches both skills and techniques.

In April 2014, Manabiya, a manufacturing skills creation center, opened at the Akashi and started providing skills training. In addition to skills training for new production workers, Manabiya provides production staff with classroom and hands-on training designed to acquire basic skills. Its training programs include special education and training for selected workers in preparation for various skills competitions and support for acquiring qualifications required at production sites.

Working in synergy with the technical skills education system implemented so far, these training centers are not only successfully passing on technical skills but also helping employees acquire new skills or develop technical and leadership skills in a short period of time, and providing employees with opportunities to enhance each other's skills.

Promoting Diversity

In April 2010, the Diversity Promotion Section was established within the Personnel & Labor Administration Division. To enable diverse human resources, regardless of race, gender, age, or faith, to make the most of their abilities, Kawasaki is taking various steps, such as allowing employees to embrace diverse workstyles to help them strike an optimal work-life balance, promoting the active participation of women, facilitating the employment of people with disabilities, extending support for the next generation and those engaging in nursing care, promoting the active participation of non-Japanese nationals, and creating an LGBT-friendly work environment.



Kawasaki was recognized for its efforts to support the professional development of women and named a Nadeshiko Brand by the Tokyo Stock Exchange and the Ministry of Economy, Trade and Industry in March 2015. It was also awarded Eruboshi certification by the Ministry of Health, Labour and Welfare in May 2016. In 2010, the company was awarded the Kurumin mark from the director of the Hyogo Labor Bureau in recognition of its efforts to support and nurture the next generation. In 2018, it won the highest rating of Gold in Work with Pride's Pride Index for its outstanding LGBT-related workplace initiatives.

Workstyle Reform: Promoting K-Win Activities

In 2016, Kawasaki launched Kawasaki Workstyle Innovation Activities (K-Win Activities) to embrace diverse and flexible working styles. K-Win Activities are aimed at changing the way people work, in mainly administrative and technical positions, with an eye to further enhancing enterprise value. These activities are designed to help employees reach their full potential and increase productivity in order to improve profitability and achieve growth over the medium- to long-term while maximizing individuals' abilities in the workplace and enabling them to lead rich and rewarding lives.

K-Win Activities are conducted with the participation of all employees in a concerted effort to change three areas: organizational culture, operations, and personnel systems. As part of this initiative, Kawasaki introduced a remote working program in January 2018. The program is designed to set working hours within certain limits and improve work productivity by allowing flexible work styles that are not restricted by location or time constraints. Starting in fiscal 2018, the company revised its personnel assessment method to raise awareness of its efforts to improve productivity, as well as actively shared information with all employees about tools that could help them visualize tasks, manage time, and improve communication.

In fiscal 2020 Kawasaki took K-Win Activities to the next level in line with the Group Vision 2030 and has been working to transform its corporate culture with the aim of achieving this vision.

Health and Safety Initiatives

The Kawasaki Group believes that ensuring the safety as well as maintaining and improving the health of its employees are key foundational components of corporate activities that enhance its enterprise value. Its clearly defined Philosophy, Declaration, and Basic Policy on Safety, Sanitation and Health is the basis of its three-year Medium-term Safety and Health Management plans as well as its Safety and Health Management Platform (a one-year plan) for occupational safety and health activities. These plans cover the prevention of work-related accidents and illnesses, as well as health maintenance and improvement, along with the development of comfortable workplaces.



Intranet site for K-Win Activities



Goals of K-Win Activities



Safety dojo



Inside the safety dojo

- **Opening of the Safety Dojo**

Kawasaki opened a safety dojo, its corporate safety education facility, at the Kobe Works in July 2015. It's a place that provides all Kawasaki Group employees with training on safety basics and refines their risk sensitivity with the objectives of learning from past incidents, raising safety awareness, and developing the capabilities needed to ensure safety.

- **Named Certified Health & Productivity Management Outstanding Organization**

Kawasaki was named a Certified Health & Productivity Management Outstanding Organization for three years running, from 2017 to 2019. The certification is awarded in recognition of efforts to take strategic measures to manage workplace health and productivity from a business-management perspective. Operated jointly by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi, the Certified Health & Productivity Management Outstanding Organizations Recognition Program recognizes companies that implement outstanding health and productivity management initiatives that address local health issues and Nippon Kenko Kaigi's efforts to promote health.

Adhering to the core principle of respect for human life and promoting good health, Kawasaki offers health education classes aimed at preventing lifestyle diseases, including an eating habit improvement seminar and exercise seminar. The company works with the health insurance union and labor union to hold the Kawasaki Health Challenge, a health promotion campaign for employees and their families, and encourages everyone to participate.



Announcement of the Kawasaki Health Challenge in the company newsletter

- **6) Creating the Innovation Department**

Kawasaki started conducting ICT/IoT research in January 2015, and opened a corporate office in the United States' Silicon Valley in October 2016 with the aim of gathering innovation-related information and cultivating business partnerships. Having observed cutting-edge technologies, marketing methods, and the entrepreneurial ecosystem in Silicon Valley, Kawasaki decided that Japan needed an innovation organization.

The company then established the Innovation Office within the Marketing Division in April 2017. It was renamed the Innovation Department in June of the same year and placed under the Corporate Planning Division in April 2019. The department was established with an aim to create value through collaboration with external startups, etc. (promote open innovation) and foster a culture of innovation. The company worked with several startups, including Global Mobility Service, Inc., a Japanese company that provides credit services to tricycle drivers, in 2018, and OSARO, Inc., an American company that develops AI for robots, in 2019.

In April 2020, Kawasaki launched an in-house program for soliciting business ideas in an effort to spark innovation throughout the organization. The program serves as a tool that can be used to tap into employees' creative side and passions.

The program received more than 100 submissions within a year of its launch, from which the noslisu, a new three-wheeled electric vehicle, and the iPNT-K, an indoor location information service, were commercialized in no time. As these ideas, born from the passion of employees, have taken shape and turned into real-world products, they have inspired others across the Group to seize the opportunity this program offers.

- **7) Toward the Achievement of a Hydrogen Society**

- **Joining the Hydrogen Council**

Aiming to build a CO₂-free hydrogen supply chain, Kawasaki developed the first industrial hydrogen liquefaction system using its home-grown proprietary technology. After beginning hydrogen liquefaction testing at its Harima Works in November 2014, the company worked on building a hydrogen supply chain, with a focus on liquefied hydrogen.

In February 2016, Kawasaki, working jointly with Iwatani Corporation, Shell Japan Limited, and Electric Power Development Co., Ltd., established the CO₂-free Hydrogen Energy Supply-Chain Technology Research Association (HySTRA) to promote the construction of a CO₂-free hydrogen supply chain and began moving full-steam ahead.

In January 2017, the Hydrogen Council was formed as a global initiative by 13 leading energy, transport, and manufacturing companies, including Kawasaki, with the shared vision and long-term ambition to foster a transition to hydrogen energy. As of 2018, the council is comprised of 39 companies (including steering members and supporting members).



Hydrogen Council



Innovation Department's San Jose Office (photo taken in 2016)



The noslisu three-wheeled electric vehicle

1.

Transforming the Organization and Corporate Culture

Chapter 4

Driving Innovation to Stay Ahead in a Changing World

2019–2021

Finding itself in a rapidly changing business environment, the Kawasaki Group implemented a series of reforms under the banner of “Changing Forward.” In 2019, it launched its Medium-Term Business Plan (MTBP) 2019 (FY2019–2021). Moving toward its primary goal of “balancing autonomous business management and company-wide corporate governance,” Kawasaki introduced a divisional system and changed its corporate structure from that of a company with a board of corporate auditors to a company with an audit and supervisory committee. On top of that, it spun off the rolling stock business as well as the motorcycle and engine business into new companies. COVID-19 began to spread globally in the early 2020s. This spread brought business across the world to a near standstill as the transportation of people and goods came to a grinding halt and supply chains suffered massive disruptions. Working against this backdrop, the Kawasaki Group saw aerospace and rolling stock orders spiral downward, resulting in year-on-year decreases in sales and profits in fiscal 2020.

In the meantime Kawasaki adopted the Group Vision 2030: Trustworthy Solutions for the Future in November 2020. The company identified three areas it should focus on in order to achieve the vision of a safe and secure remotely connected society, near-future mobility, and energy and environmental solutions.

Kawasaki was determined to leverage its diverse range of unique technologies and work hard to overcome the hurdles created by the COVID-19 pandemic while solving a myriad of problems facing the world as it kept its eye on achieving a sustainable society.

1) Formulation of MTBP 2019

Kawasaki saw the profitability of some of its businesses significantly drop during the period of the MTBP 2016 medium-term business plan that ended in fiscal 2018 and urgently needed to strengthen its financial base. On the other hand, the businesses that were driving growth were about to reap returns as expected on investments that had been made on an ongoing basis.

It was against this backdrop that Kawasaki launched its MTBP 2019 in April 2019. The plan envisioned a fiscal 2030 operating income margin of 10% or more (with annual sales growth of 5% or more) in light of megatrends in the business environment and the SDGs. The company decided to make selective investments over the three years of the MTBP 2019 by placing the most emphasis on strengthening its financial base in order to achieve further growth. The outline of the plan is as follows.

[Basic Policy]

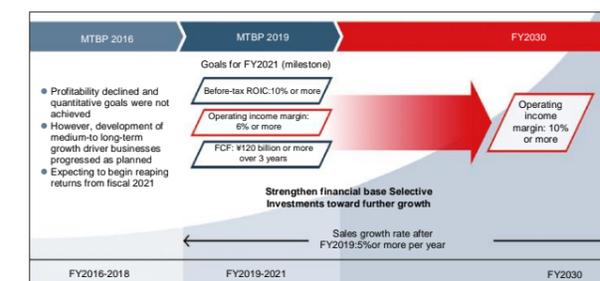
- (i) Strengthen the financial base
Return to the philosophy of emphasizing quality over quantity to improve operational quality (including project risk management), and strengthen the financial base toward future growth
- (ii) Total optimization of business portfolios
Balance autonomous business management and company-wide corporate governance
Implement carefully selected investments of labor, resources, and budgets, from the viewpoint of total optimization. Consider megatrends and SDGs. Clarify each business’s role, optimal scale, and form
- (iii) Business model innovation (“Changing Forward”)
Make good use of core competencies to increase enterprise value through business and value chain innovations (without sticking to in-house development and production)
- (iv) Innovate company organization/culture (“Changing Forward”)
Construct cross-organizational functions and management systems for total optimization and a company culture to face evolving challenges



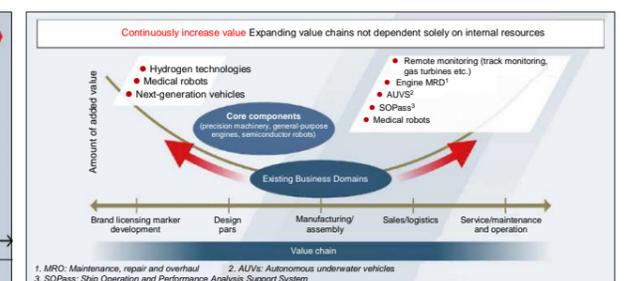
Group report on the MTBP 2019



Press conference announcing the MTBP 2019



Long-Term Vision and the MTBP 2019



Business Model Innovation Breaking Away from Insourcing Policies (Changing Forward)

[Management Targets (FY2021)]

Before-tax ROIC*1	10% or more
Ratio of operating income to sales	6% or more (100 billion yen or more)
FCF*2	120 billion yen or more over 3 years

*1 ROIC = EBIT/invested capital (i.e. shareholders' equity + interest-bearing debt)
*2 FCF before spending on growth investment

[Key Measures]

<Reinforce earning power and corporate strength ahead of fiscal 2021>

- Improve earning power and free cash flow
- Strengthen project risk management/quality control systems
- Clarify the position of each business via a portfolio and rebuild them
- Innovate business models by breaking away from insourcing policies
- Innovate company organization/culture and implement K-Win activities

<Achieve quantitative goals with FY2021 as a checkpoint>

- Achieve goals through profit & loss/cash flow quantity models

<Spell out long-term policy for years up until FY2030>

- Growth vision for FY2030
- Megatrends in Kawasaki's markets/SDGs
- Achieve discontinuous innovations

Although the outlook for the global economy was uncertain due to the trade friction between the United States and China and the slowdown of the Chinese economy, Kawasaki decided to invest in growth businesses with an eye to fiscal 2030 while moving forward to achieve its management goals. The company also started looking at its vision for 2030 (Kawasaki Vision).

2) Introduction of a Divisional Organizational Structure

Kawasaki focused on ensuring both autonomous business management and company-wide corporate governance under the MTBP 2019. As part of this policy, it introduced a divisional organizational structure in April 2020. This involved reorganizing 28 business units into 14 strategic divisions of the company-wide business portfolio and appointing division heads who would be in charge of executing the operations of their respective divisions.

3) Inauguration of Yasuhiko Hashimoto as President

In June 2020, Kawasaki's president, Yoshinori Kanehana, became its chairman, and Yasuhiko Hashimoto, its senior executive vice president, became president. Hashimoto had worked on the development of industrial robots and taken charge in the launch of a robot business for semiconductor manufacturing equipment as well as the establishment of Medicaroid Corporation, a company that develops medical robots.

In assuming the position of president, he stated, "I have the responsibility to chart a course for the future and take steps needed to enhance our potential as a company while continuing the reforms former President Kanehana has implemented so far." He also proclaimed his commitment to tackling the issues facing society with speed while keeping an eye on the market.

Company	Division
Ship & Offshore Structure Company	Naval and Special Ship Business Division Merchant Ship Business Division
Rolling Stock, Construction Machinery & Crushing Plant Company	Domestic and Asian Business Division North American Business Division
Aerospace Systems Company	Aerospace Business Division Aero Engine Business Division
Energy System & Plant Engineering Company	Energy Solutions Business Division Plant Engineering Business Division Marine Machinery Business Division
Motorcycle & Engine Company	Motorcycle Business Division 4 Wheel & PWC Business Division General Purpose Engine Business Division
Precision Machinery & Robot Company	Precision Machinery Business Division Robot Business Division



Chairman Kanehana (left) and President Hashimoto (right)

4) Transition to a Company with Audit & Supervisory Committee

Kawasaki changed its status from a company with a board of corporate auditors to a company with an audit and supervisory committee following the approval of its shareholders at their ordinary general meeting on June 25, 2020. The transition was designed to give the Board of Directors more input on management strategies and other matters and enable them to respond swiftly to rapid changes in the business environment while further strengthening its supervisory function. This change delegated a significant portion of the authority to make business decisions to executive directors and executive officers appointed by the Board of Directors and added greater agility to the decision-making process. At the same time, the composition of the Board of Directors was also changed. The percentage of outside directors was increased to make management more agile and efficient as well as ensure transparency. As of October 2021, six of the 13 directors were outside directors. In order to ensure the board maintained a diverse perspective, two women and one non-Japanese national were appointed as members.

Structure after Transition to a Company with an Audit & Supervisory Committee

Before transition		
11 directors	Inside	8
	Outside	3
5 corporate auditors	Inside	2
	Outside	3



After transition		
13 directors	Directors who are not Audit & Supervisory Committee Members	Inside 5 Outside 3
	Directors who are Audit & Supervisory Committee Members	Inside 2 Outside 3

2. Implementing Group Vision 2030



Group Vision 2030 and the three key themes that drive the Group's efforts to achieve it

1) Formulating Group Vision 2030

In November 2020, Kawasaki adopted a new vision statement, the Group Vision 2030: Trustworthy Solutions for the Future, describing what the Group envisioned itself becoming by 2030. Group Vision 2030 embodies the corporate message, “changing forward,” which Kawasaki announced in 2017. It underscores the Group’s commitment to providing timely and innovative solutions in an ever-changing world in order to build a future full of hope. It promises to go beyond organizational and divisional boundaries in taking on new challenges and expand the horizon of possibilities to sow the seeds for further growth. The company picked three key themes that drive its efforts to fulfill Group Vision 2030.

Frontier Pioneering the technology frontier with our challenger “DNA”

We will continue to respond to the frontier of the new era’s social challenges, based on the unique perspective of challengers we’ve always had since our founding, in order to create a hopeful future.

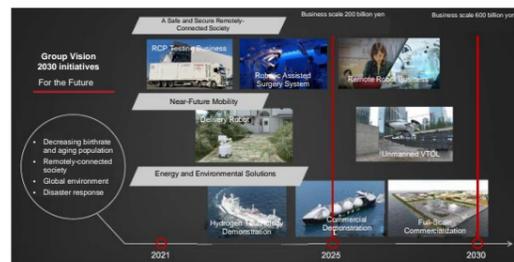
New Values Providing innovative solutions to the problems facing the world

We are committed to providing solutions with new and high added value to a wide range of customers and society, by concentrating the trustworthy technologies and knowledge that we have been building in order to provide innovative solutions and to speedily accommodate social change.

Cross Over Becoming a creative challenger that continues to grow by breaking barriers

To provide innovative solutions focused on social challenges, we will continue to be an open-minded, free-thinking, and creative team that goes beyond the boundaries of internal and external organizations and of product/service categories, leveraging our rich diversity.

The company identified three areas it should focus on in order to achieve this vision, including a safe and secure remotely connected society, near-future mobility, and energy and environmental solutions. A safe and secure remotely connected society: Applying remote control and robot technologies in various fields such as medicine, healthcare, manufacturing, and industrial infrastructure to make “working from a remote place” possible with an eye to achieving a safe and secure society and proposing new ways of working and living. And in addition, providing solutions that will protect lives and property from disasters that have been a common occurrence in recent years.



Group Vision 2030 initiatives

Near-future mobility: Combining technologies for aircraft, off-road four wheelers, robots, and more to develop new forms of mobility, such as remotely controlled, unmanned transport helicopters and self-driving delivery robots, to offer smart society solutions that use new modes of transport and travel, including solutions to the last-mile delivery challenge.

Energy and environmental solutions: Leading the world in building a hydrogen supply chain for the production, transportation, storage, and utilization of hydrogen, developing CO₂ separation and capture technology, electrifying transportation systems, and more to help achieve a sustainable, carbon-neutral future.

2) Transitioning to a Business Structure for Creating Solutions

In addition to focusing on the three fields noted above, Kawasaki decided to operate businesses within the three areas of Land & Air Transportation Systems, Motion Control & Motor Vehicles, and Energy & Marine Engineering to create solutions and allow business segments to collaborate more effectively. The company also transformed via major organizational changes. In April 2021, it merged the Ship & Offshore Structure Company and the Energy System & Plant Engineering Company to establish the Energy Solution & Marine Engineering Company, with the aim of strengthening competitiveness through synergies among the hydrogen, marine, and engineering businesses.

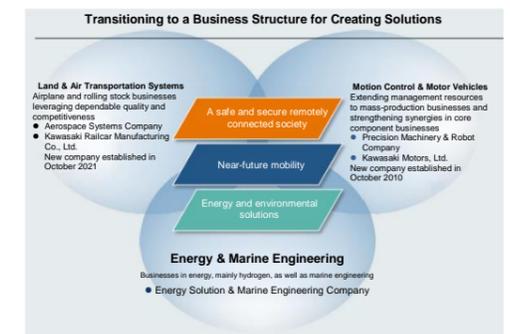
Parallel to this restructuring, the company spun off its Rolling Stock and Motorcycle & Engine Companies as separate companies in order to ensure the autonomous management of each.

3) Spinning off Rolling Stock and Motorcycle & Engine Businesses

Establishing Kawasaki Railcar Manufacturing Co., Ltd.

Kawasaki Railcar Manufacturing Co., Ltd. was established on October 1, 2021. Rail systems are an environmentally friendly means of public transportation intertwined in people’s daily life and can contribute in a big way to carbon neutrality. The market was expected to grow at a relatively stable pace across the globe, as illustrated by the growing need for rail services that accompanied economic development in countries across Asia.

Having established an organizational structure that would enable it to quickly and flexibly work with other industry players in this growing market, Kawasaki Railcar Manufacturing adopted the following corporate philosophy: “We pledge to ensure day-to-day safety and to bring about an exciting future by constantly tackling challenges in craftsmanship and technological innovation.”



Transitioning to a Business Structure for Creating Solutions



Dhaka Mass Transit Company Limited's Dhaka MRT Line-6 in Bangladesh

Establishing Kawasaki Motors, Ltd.

Kawasaki Motors, Ltd. was established on October 1, 2021. The power sports business, selling motorcycles and off-road four wheelers, and general-purpose engine business were experiencing a once-in-a-century transformation with CASE.* They were also making headway on compliance with environmental regulations and partnerships in electrification and advanced safety technologies. The power sports business was a Kawasaki Group core business and its only B2C business, and required flexible and bold decision-making.

Working against this backdrop, Kawasaki Motors focused on keeping its operations flexible, creating stores based on the concept of “enjoying with five senses,” and offering products and services that were tailored to customer needs in order to build a stronger brand and achieve sustainable growth.

* CASE stands for Connected, Autonomous/Automated, Shared, and Electric.

4) Introduction of a New Personnel System

In April 2021, Kawasaki overhauled its personnel system. Aiming to achieve Group Vision 2030, the company introduced a brand new personnel system that would enable the people that made up its diverse workforce to maximize their abilities and produce high added-value results. It adopted a new approach and framework of compensation and evaluation that placed greater emphasis on abilities, roles, and achievements to enhance its ability to respond quickly to changes in society.

Built around the concept of “challenge and commitment” (setting challenging goals in addition to minimum goals and accomplishing them with speed and determination), the new personnel system was designed to foster a culture that encouraged employees to try new things.

Job-based System Boosts Employees’ Desire to Grow

For senior officials, the company adopted a job-based system, in which salary and compensation were determined on the basis of their roles, such as the duties they should perform and results they should achieve. The breadth of jobs associated with all positions in the company was measured by clarifying the required knowledge, experience, responsibility for achieving expected results, etc. The company applied job ranks that were based on this to raise awareness about the new personnel system.

The company also designated certain individuals as corporate executives, from among those who perform important corporate duties and those who possess outstanding behavioral characteristics, to be evaluated, trained, and assigned with a bigger corporate picture in mind.



Hybrid motorcycle under development by Kawasaki Motors, Ltd.



Off-road four wheeler

This would facilitate active exchange among employees and bridge the chasm between internal companies while unleashing potential synergies between businesses as the company aimed to continuously enhance its enterprise value.

Assigning Employees with the Right Stuff and Developing Next Generation Leaders

For general employees, seniority, including age, and employment history was off the board. The new system placed greater weight on individual abilities. Kawasaki could now quickly find and promote outstanding young employees in a system that motivated young employees to further their professional development while still enabling veteran employees to thrive in the workplace regardless of their age.

The new system also integrated categories E (clerical and technical positions) as well as R (planning management and development positions) and created category V (planning and professional positions) while merging full-time positions into category G and partner employees into category A (clerical positions). This realignment of positions and professional qualifications into larger categories would provide employees with opportunities to work a wider range of jobs and help them gain extensive experience while recognizing employees who performed more difficult tasks.

5) Launching Presidential Projects

Moving toward achieving the objectives of Group Vision 2030, Kawasaki went beyond the boundaries of its individual internal companies to leverage the Group’s strengths as a whole. This included implementing a series of company-wide reforms and establishing the Presidential Project Management Division in January 2021. It set up various organizations dedicated to PCR testing services, near-future mobility, and more in order to quickly create new businesses that transcended the frameworks of its internal companies.

The Presidential Project Management Division consisted of the Project Promotion Department, Administration Department, PCR Supervisory Department, Advanced Smart Mobility Supervisory Department, and eWork Business Group (newly established in February of the same year), where many employees appointed from across all internal companies could pursue synergies that crossed the boundaries of the internal companies.

Initiatives of the PCR Supervisory Department

In early 2020, the novel coronavirus (COVID-19) began to spread around the world. In April of the same year, the Japanese government declared a national emergency.

Kawasaki and its subsidiaries, Mediaroid and Sysmex Corporation, jointly developed an automated robotic PCR testing system that fully automated processes involving the risk of infection. Following the launch of the first testing service at Fujita Health University in March 2021, Kawasaki started offering a testing service for local governments in May and for international passengers departing from Kansai International Airport in September.



Automated robotic PCR testing system



K-RACER unmanned VTOL aircraft



Automated delivery robot

Initiatives of the Advanced Smart Mobility Supervisory Department

In August 2021, Kawasaki was commissioned by Ina City, Nagano Prefecture to build a platform for transporting cargo to locations deep in the mountains using the K-RACER unmanned VTOL aircraft. The company also developed an automated delivery robot designed to achieve smooth, stable operations even on rough and bumpy roads and conducted testing at a hospital and in urban areas. In November 2021, the company successfully completed proof-of-concept testing for unmanned cargo transport using its K-RACER and delivery robot with the aim of helping to solve societal issues such as labor shortages in the logistics industry.

Initiatives of the e-Work Business Group

In December 2021, Kawasaki and the Sony Group Corporation established Remote Robotics Inc., a joint venture for remote robot platform businesses. The joint venture started demonstration tests with an aim to build remote control platforms for robots utilizing the advantage of both companies.

6) Initiatives for a Decarbonized Society

In 2010, the Kawasaki Group publicly announced its plan to build a CO₂-free hydrogen supply chain for the international transport of low-cost hydrogen produced overseas in order to meet growing expectations for hydrogen-related businesses that hold the key to achieving a decarbonized society. In 2018, with the support of the Japanese and Australian governments, the Group started working with partner companies to demonstrate its technology for building an international supply chain designed to liquefy hydrogen produced from Australian brown coal and transport it to Japan. In 2022, Kawasaki became the first in the world to successfully transport liquefied hydrogen internationally. In 2021, a commercialization demonstration project aimed at making the transport of hydrogen more economically feasible by increasing the size of equipment and facilities was adopted as a Green Innovation Fund project. Efforts are underway to achieve an annual supply of 225,000 tons when the supply chain becomes available for commercial use in 2030.

Kawasaki has also announced that it would aim for achieving carbon neutrality on its own at its domestic plants by 2030 through initiatives centered on hydrogen power generation.

In addition, the company and the Research Institute of Innovative Technology for the Earth (RITE) will start a joint pilot demonstration at the Kansai Electric Power Company Inc.'s Maizuru Power Plant in 2023 under the New Energy and Industrial Technology Development Organization (NEDO) project for applied research on coal combustion waste gas and advanced carbon dioxide solid absorption materials.

The energy-saving carbon dioxide separation and capture system used in the demonstration is expected to be a next-generation CO₂ separation and capture technology because it has the potential to significantly reduce the energy required for CO₂ separation and capture compared to conventional technologies.



Suiso Frontier liquefied hydrogen carrier



Artist's rendering of the pilot scale test facility at the Maizuru Power Plant (Photo: Kansai Electric Power Company Inc.)

7) Trustworthy Solutions for the Future

Kawasaki aims to create a new world via each of the three key focuses of its Group Vision 2030: a safe and secure remotely connected society, near-future mobility, and energy and environmental solutions. The hydrogen business will not only produce products that are compatible with hydrogen fuel, but also create a clean hydrogen-powered society. Near-future mobility will focus on creating a society with new transportation and logistics systems tailored to changes in the movement of people and goods. This also means shifting from conventional manufacturing to selling services, i.e., shifting to the business model of providing solutions that meet the changing needs of society. In order to make that possible, Kawasaki will bolster partnerships with government agencies and other companies as it works to build a network of like-minded partners.

Today, the world is facing multiple problems, including climate change, resources, poverty and hunger, aging populations, and a shrinking workforce. On top of that, the spread of COVID-19 is having a tremendous impact on people's health and economies around the world.

Working in a global environment, the Kawasaki Group will continue to explore market wants and how it can satisfy those wants as it strives to quickly deliver needed solutions. The Group's social role and responsibility is to do its best to achieve a sustainable society by providing solutions that meet the needs of all. All of Kawasaki's businesses will continue to make a change for the better and do everything necessary to create the kind of new customer value the world needs as it moves forward to provide "Trustworthy Solutions for the Future."



Ceremony to commemorate the completion of the Japan-Australia supply chain for large-scale marine transportation of brown coal-derived hydrogen