Kyosei

Canon’s corporate philosophy is kyosei. It conveys our dedication to seeing all people, regardless of culture, customs, language or race, harmoniously living and working together in happiness into the future. Unfortunately, current factors related to economies, resources and the environment make realizing kyosei difficult. Canon strives to eliminate these factors through corporate activities rooted in kyosei.

Truly global companies must foster good relations with customers and communities, as well as with governments, regions and the environment as part of their fulfillment of social responsibilities.

For this reason, Canon’s goal is to contribute to global prosperity and the well-being of mankind as we continue our efforts to bring the world closer to achieving kyosei.

Canon’s Corporate DNA

Behind Canon’s 80-year history and development as a business lies its corporate DNA: a respect for humanity, an emphasis on technology, and an enterprising spirit that the company has consistently passed on since its foundation. The enterprising spirit on which Canon was started as a venture company, and the relentless drive to distinguish itself through technology, permeate the company, and have continued to provide society with new advances. These motivating factors are in turn supported by a respect for humanity, which encompasses meritocracy and an emphasis on good health. Canon is committed to passing its corporate DNA on to future generations to ensure the company grows for another 100, or even 200, years.

The Three Selfs, the foundation of the company’s guiding principles that have been passed down since Canon was founded, are self-motivation, self-management and self-awareness. For Canon, which strives to be a truly excellent global corporation while maintaining the legacy of its corporate DNA, the Three Selfs continue to serve as the company’s most important guiding principles.

Self-motivation
Take the initiative and be proactive in all things

Self-management
Conduct oneself with responsibility and accountability

Self-awareness
Understand one’s situation and role in all situations

The QR codes in this booklet are links to the Canon Video Square and other related websites. Scan any QR code to see related content.

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2017 marked Canon’s 88th anniversary. It was an epoch-making year in which we continued Phase V of our Excellent Global Corporation Plan (2016 – 2020) and established a strong foundation for the grand strategic transformation of our business portfolio. Between our existing businesses, which have continually supported us with solid earnings, and the expansion of our new businesses that will drive future growth, our sales exceeded 4 trillion yen ($36.1 billion*) for the first time since the financial crisis of 2008. Furthermore, for the first time in four years, we registered an increase in both sales and profits.

Toward achieving our grand strategic transformation, we are focused on our four new businesses of commercial printing, network cameras, healthcare and industrial equipment. Through collaboration with Group company Océ, our commercial printing business is growing to meet the diversifying needs of the expanding digital printing market. In our network camera business, which is growing mainly in the areas of security and surveillance, we are achieving synergies with Group companies Axis and Milestone Systems, enabling us to propose network visual solutions based on a combination of superior technologies in such areas as video content analysis. Our work in healthcare centers on Canon Medical Systems, which joined the Canon Group in December 2016 as Toshiba Medical Systems and adopted its new name in January 2018. We are expanding our business in diagnostic imaging, healthcare IT and in-vitro diagnostic systems. Lastly, in our industrial equipment business—which includes Canon Tokki, the market leader in Organic LED (OLED) panel manufacturing equipment—we are combining our strengths from across the entire Canon Group to develop new manufacturing systems that will play a vital role in next-generation manufacturing.

With the advancement of such IT technologies as the IoT, big data and AI, the world is on the cusp of a revolution in product usage and manufacturing methods. While continuing to pursue innovation in such longstanding business segments as cameras, inkjet printers and office multifunction devices, we are striving to improve productivity through automation and in-house development of software.

Since Canon’s foundation, we have continued to pass down our corporate DNA of enterprising spirit and the San-ji, or “Three Selfs,” Spirit. And under our corporate philosophy of kyosei, we seek to become a truly excellent company that is admired and respected around the world. Toward this end, we will continue working together as a Group to become an Excellent Global Corporation of the highest order.

*At an exchange rate of ¥113 = US$1

Fujio Mitarai
Chairman & CEO
Canon Inc.

A grand strategic transformation to become an Excellent Global Corporation of the highest order
Canon, seeking to become a truly excellent company that is admired and respected around the world, launched the medium-to-long-term Excellent Global Corporation Plan in 1996 and has successfully completed the first four phases of this plan. In Phase V, we are implementing seven key strategies as we embrace the challenge of new growth through a grand strategic transformation.

1. Establish a new production system to achieve a cost-of-sales ratio of 45%
   - Strengthen domestic mother factories by further promoting a higher ratio of production in Japan and the integration of design, procurement, production-engineering and manufacturing-technology operations. At the same time, pursue total cost reductions through the promotion of such advanced production-engineering technologies as robotics and automation.

2. Reinforce and expand new businesses while creating future businesses
   - Create and expand new businesses by accelerating the horizontal expansion of existing businesses. Additionally, concentrate management resources and make effective use of M&A to accelerate the expansion of promising businesses such as commercial printing, network cameras and life sciences.

3. Restructure the global sales network in accordance with market changes
   - Review existing sales organizations and reinforce omni-channel marketing that integrates online and brick-and-mortar sales routes while strengthening and expanding solutions-driven businesses with the aim of solving issues faced by customers. Additionally, continue focusing energies on cultivating markets in emerging countries.

4. Enhance R&D capabilities through open innovation
   - Discard the strict notion of self-sufficiency and construct an R&D system that proactively leverages external technologies and knowledge, promoting joint and contract research with various partners such as domestic and foreign universities and research institutes.

5. Complete the Three Regional Headquarters management system capturing world dynamism
   - Promote the acquisition of promising businesses through active M&A and complete the Three Regional Headquarters management system, under which Japan, the U.S. and Europe will each roll out businesses globally.

6. Cultivate globally competent human resources capable of performing duties while maintaining an all-encompassing perspective of the world map
   - Build a global management system targeting the optimal use of human resources in operations worldwide. Examine personnel worldwide to identify candidates for senior management positions and develop the skills of these future leaders by rotating them through key positions in Japan and overseas.

7. Re-instill the Canon Spirit as a foundation for new growth
   - Revitalize the enterprising spirit and San-ji (Three Selfs) Spirit at the heart of Canon’s corporate culture.

Canon’s Road to Phase V

1996–2000
- To strengthen its financial structure, Canon transformed its mindset to a focus on total optimization and profitability. The company introduced various business innovations, including the selection and consolidation of business areas, and reform activities in such areas as production and development.

2001–2005
- Facing a recession, Canon focused on strengthening product competitiveness along with the changing times, stepping up efforts to digitize its products. The company also conducted structural reforms across all Canon Group companies around the world.

2006–2010
- Canon moved ahead with such growth strategies as enhancing existing businesses and expanding into new areas while also thoroughly implementing supply chain management and IT reforms.

2011–2015
- Responding to turbulence in the global economy, Canon revisited its management policy from a strategy targeting expansion of scale to a strategy aimed at further strengthening its financial structure. While actively pursuing M&A activities, the company restructured its business at a foundational level to introduce new growth engines for future expansion.
Currently, Canon is in the midst of a grand strategic transformation designed to accelerate growth in our four new businesses: commercial printing, network cameras, healthcare and industrial equipment. From development to manufacturing, procurement and all the way to the cultivation of human resources, we are striving for complete success as a Group. At the same time, in such mature businesses as cameras and printers, we are pursuing next-stage growth through the development of high-value-added products and cost reduction.
Canon’s familiar logo brings a personal touch to healthcare

Here at the Canon Medical Systems factory, a new MRI system is undergoing a stringent final stage quality inspection prior to shipping. It will be the first Canon Medical Systems’ product to bear the Canon logo.

The company’s management philosophy, Made for Life, expresses compassion toward patients and the value of their lives, which this MRI system provides through high quality imaging and technologies that ensure more comfortable exams. Canon Medical Systems pioneered non-contrast imaging, which allows images to be acquired without the use of contrast agents that can be detrimental to the health of patients. Additionally, noise-reduction technology and a design that creates a sense of spaciousness in the examination area has helped to reduce two problems associated with MRI systems. In such ways, Canon Medical Systems contributes to healthcare development through technology that is closely connected to the experiences of doctors and patients, while continuing to develop new products to protect life.
The Aquilion ONE X-ray CT scanner was awarded the Japan Medical Research Development Award at the 2017 Japan Medical Research and Development Grand Prize Awards ceremony. The Awards are given in recognition of contributions to medicine. The system realizes high image quality while reducing patient radiation doses, minimizing the use of contrast agents and contributing to faster diagnoses. Using Canon’s advanced micro-optics fabrication technology, we are developing an ultra-miniature endoscope less than 1 mm in diameter. Despite being extremely thin, this endoscope is expected to be robust enough to resist breaking when inserted in a patient’s body, enabling real-time observation of such previously inaccessible anatomies as the insides of joints and paranasal cavities. In the field of medical robotics, we are developing a needle-guiding system that assists with percutaneous procedures by accurately navigating position and depth. This device has shown great promise for near-future applications, including improving the precision of biopsies, use in cancer ablation therapy and for reducing treatment times.

Japan’s Ministry of Health honors the world’s first X-ray CT scanner that captures the movement of organs

Canon’s healthcare business in the United States is at the vanguard of a revolution in medical research. To keep Canon research and development on the leading edge, we maintain a strong commitment to open innovation. At Canon U.S.A.’s Healthcare Optics Research Laboratory in Boston, Massachusetts, the company conducts joint research with two Harvard Medical School teaching affiliates—Massachusetts General Hospital and Brigham and Women’s Hospital—to develop medical devices such as medical robotics and cardiovascular endoscopes. Using Canon’s advanced micro-optics fabrication technology, we are developing an ultra-miniature endoscope less than 1 mm in diameter. Despite being extremely thin, this endoscope is expected to be robust enough to resist breaking when inserted in a patient’s body, enabling real-time observation of such previously inaccessible anatomies as the insides of joints and paranasal cavities. In the field of medical robotics, we are developing a needle-guiding system that assists with percutaneous procedures by accurately navigating position and depth. This device has shown great promise for near-future applications, including improving the precision of biopsies, use in cancer ablation therapy and for reducing treatment times.

Canon BioMedical, established in 2015, has developed and brought Novallele genotyping assays to the market, and our sales channels are expanding not only in the United States, but also in Europe.
Network cameras watch over Yokohama, creating a secure city

Located south of Tokyo, Yokohama is home to over 3.7 million people and attracts some 46 million tourists from around the world annually.

Currently in the world’s spotlight as the city prepares to host the Rugby World Cup 2019™ finals, Yokohama is implementing a Canon and Axis surveillance system as it develops the infrastructure to become a model city for safety and security. The cutting-edge cameras provide high-resolution shooting even at nighttime and 360° continuous panning, setting high expectations for a system that will not only help to identify potentially dangerous situations at large events, but will also enable prompt and accurate assessments in the event of a natural disaster.

Yokohama is placing its confidence in Canon technology to ensure the safety and security of its citizens and visitors 24/7.
With the rising awareness of security issues worldwide, the shift from analog surveillance cameras to network cameras continues to progress. Canon entered the network camera market in 2013, utilizing advanced technologies cultivated through decades of camera development. Moving further ahead with an eye toward developing network camera solution services, we began to apply the network control, image analysis software and cloud service technologies borne of our leading-edge office multifunction devices.

Given the rapid growth of the market, Canon welcomed the Sweden-based company Axis into the Group in 2015, in order to turn network cameras into a core business. In 1996, Axis became the first in the world to develop a network camera for surveillance. Today, the company remains an industry pioneer and is one of the world’s leading corporations, partnering with over 90,000 companies in 179 countries and regions. In 2017, Canon and Axis launched our first co-developed product, the AXIS Q1659, which can be equipped with various EF-series interchangeable lenses ranging from ultra-wide angle to telephoto, making this network camera ideal for a wide range of purposes.

Recently, Canon released an ultra-high-sensitivity network camera, the ME20F-SHN, which uses our CMOS sensor technology to capture full-color video in extreme low-light conditions. Delivering excellent performance under nothing but starlight, this camera is expected to play an active role in nighttime surveillance at various types of facilities as well as the monitoring of rivers, borders and disaster sites.

Advancing into the rapidly growing network camera market with technologies cultivated through camera and office multifunction device development

The coordination of multiple network cameras enables the monitoring of widespread and remote areas, as well as the search, detection and tracking of specific persons. To optimize the effectiveness of such operations, video management software is needed to centrally manage the recording, editing and display of video transmitted from the cameras. Denmark-based Milestone Systems, which joined the Canon Group in 2014, has a leading share of the global video management software market. Milestone’s core product is XProtect, an open platform with superb expandability that achieves the stable management of multiple cameras.

Canon is currently working on video content analysis technology that will deliver higher value to network camera video. We have begun marketing such products as Profile Analyzer, which can deduce the age and gender of persons from live video, and People Counter, which can instantly count as many as 1,500 people in a crowd. Now, we are developing software that can track a specific person from multiple camera images.

In the future, with advances in AI and with faster transmission speeds, network cameras will evolve into intelligent systems capable of even more precise recognition and judgement. By integrating our proprietary imaging technology with Axis’s network video processing technology and Milestone’s video management technology, Canon is providing new solutions towards realizing a safe and enriched future.

Accelerating the evolution of network cameras and proposing solutions for an enriched future

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Providing new solutions towards realizing a safe and enriched future

By integrating our proprietary imaging technology with Axis’s network video processing technology and Milestone’s video management technology, Canon is providing new solutions towards realizing a safe and enriched future.
Canon technology supports the growth of digital printing

Andi Smart Print Solutions, a printing company located in Maastricht, the Netherlands, has a 90-year history. Many of Andi’s customers operate globally and thus need to print such documents as manuals in multiple languages, often in short runs, for which only the language of the text needs to be changed. Andi had been struggling to provide this kind of work efficiently with conventional offset printing equipment.

As a result, Andi, which has very high standards for print quality, introduced digital printing presses from Canon and Océ to improve the productivity of their printing operations. Our digital printing presses enable companies to respond efficiently to a wide range of customer printing needs, such as short-run production, quick turnaround and variable-data printing that makes possible the output of content that varies by sheet—all of which are difficult to provide with offset printing.
The tomb of the 19th Dynasty pharaoh Seti I is the largest and deepest in the Valley of the Kings. Until an NPO-initiated reconstruction plan began in 2016, the inner walls and pillars embellished with reliefs were in disarray from tomb robbery and neglect. First, 3D photographs and scans were taken of the interior of the tomb. Based on those images, full color prints and molds were made with Océ’s UV-ink-based elevated printing technology. This enabled the faithful reproduction of reliefs up to 15 mm thick, and a 2 mm relief skin of the pharaoh’s sarcophagus.

For printing companies, digital printing provides numerous advantages over conventional offset printing. These include centralized workflow management that streamlines the entire process from the receipt of orders to the editing of print data and process control and coordination of such post-press processes as binding. Canon and Océ’s PRISMA workflow management software enables seamless schedule management of multiple presses and allocation of printing jobs, increasing the productivity of short-run production significantly.

Océ elevated printing technology helps create a faithful replica of a 3300-year-old pharaoh’s tomb

The combined strength of Canon and Océ promotes the digitalization of commercial printing

Commercial printing is a vast industry, covering a wide range of printed materials—from books, newspapers and magazines to such promotional materials as sales catalogs, flyers, direct mail and the statements, invoices and other documents that are crucial to running a business. For decades, offset printing, which involves the laborious process of creating printing plates, has been the dominant technology. However, digital printing does not require printing plates—an advantage that continues to drive increased demand. Digital printing also offers such benefits as variable-data printing which enables users to change the content of individual sheets in a print job. Such flexibility gives businesses the ability to serve customers who need short-run production and quick turnaround.

Océ, who joined the Canon Group in 2010, is a leading provider of digital printing presses, producing systems that realize both high productivity and outstanding reliability. As “One Canon,” Canon and Océ offer products and services for both office and commercial printing while continuing to expand our lineup of printing presses. For the graphic arts market, which has strict quality standards for the printing of such media as catalogs and promotional materials, we launched the Océ ProStream 1000 continuous feed inkjet press in 2017. This inkjet printing press is capable of high-speed printing on offset coated paper that rivals the quality and productivity of traditional offset printing.

Raising the productivity of printing companies and making inroads into new business fields

Océ’s Development Division in Poing, Germany, conducts R&D into continuous feed presses and ink (above)

Canon’s production method, which includes individual unit assembly, employed at an Océ production site (below)

Océ elevated printing technology helps create a faithful replica of a 3300-year-old pharaoh’s tomb

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Nanoimprint opens a new door to the future of digital society

Located in western Japan, Toshiba Memory Corporation’s Yokaichi Operations plant stands at the forefront of semiconductor memory production. Here, verification is underway for the application of Canon’s nanoimprint technology for the mass production of semiconductor devices. The miniaturization of circuit patterns has brought dramatic improvement to semiconductor memory performance and capacity. In recent years, however, the conventional approach of using light to transfer the circuit patterns onto chips appears to be approaching a technological limit. To overcome this hurdle to further miniaturization, Canon has developed semiconductor lithography equipment that employs an innovative approach called nanoimprint lithography, which is gaining recognition not only for its nanolevel precision, but also for the relative compactness of the equipment used, which can significantly reduce semiconductor manufacturing costs.
On June 23, 2017, the CE-SAT-I, a micro satellite developed and manufactured by Canon Electronics, was launched from India and safely made it into Earth’s orbit. The satellite weighs only 65 kilograms and benefits from electronic and optical technologies from across the Canon Group. Photos of the Earth captured by onboard Canon EOS and PowerShot digital cameras are transmitted to the ground one after another, and using the valuable information from these high-resolution images, we are taking a bold first step toward an expansive space business.

Canon Electronics’ satellite successfully reaches orbit, elevating expectations for our space business

The industrial equipment produced by the Canon Group supports manufacturers in various fields, including semiconductor and electronic devices. Canon Tokki continues to be the industry leader in Organic LED (OLED) panel manufacturing equipment. The demand for OLED panels is rapidly growing and Canon Tokki’s manufacturing equipment ensures high efficiency and high quality. Eyeing further growth, this Canon Group company is developing new technologies that will enable even further leaps ahead in image resolution and productivity.

Canon industrial equipment plays a vital role in cutting-edge manufacturing

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With the advent of the age of the Internet of Things (IoT), where everything will be connected to the internet, all kinds of objects will be equipped with such semiconductor devices as sensors and communication devices, memory for data storage and processors for AI that analyze big data. Demand is ever increasing for these semiconductor devices as they become even more vital to society.

Semiconductor devices evolve through miniaturization, or narrowing the circuit line widths and increasing the density of circuits on a device. Advances in semiconductor lithography equipment are the key to achieving this miniaturization and reducing manufacturing costs. Conventionally, miniaturization was achieved by shortening the wavelength of the light source used when exposing the device. The technological limit of this method, however, appears to have been reached, making an innovative new approach necessary.

Canon, together with Canon Nanotechnologies, has developed a method that eliminates the projection lens used to reduce and project circuit patterns, replacing it with a mold, called a mask, onto which circuit patterns are transferred. The mask is pressed like a stamp onto a resist on the wafer surface and Canon’s state-of-the-art control and measuring technologies, which we have cultivated through the development of semiconductor lithography equipment, make it possible to faithfully reproduce high-resolution patterns. What’s more, this approach is less complex than conventional methods, which allows the equipment to be more compact.

To commercialize this nanoimprint lithography equipment, Canon developed technologies that ensure nano-level defect control, overlay accuracy and the elimination of foreign particles. Even compared with the latest conventional lithography technology—Extreme Ultraviolet, or EUV—our nanoimprint systems can significantly reduce manufacturing costs. Expectations are high that this equipment will serve to manufacture the next generation of flash memory.

Using nanoimprint technology to manufacture next-generation flash memory

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The market for digital printing continues to grow, thanks to such advantages as short-run production for a broad range of applications, quick turnaround and variable data printing. Featuring reliable hardware that produces high-quality images and smart workflow software, Canon’s commercial-use printers realize exceptional productivity that optimizes the entire printing process from the receipt of orders to post-production. Through our collaboration with Océ, we are also developing new technology for the fast-growing field of package printing.

The network camera industry is growing in step with rising security concerns worldwide. Combining our expertise in imaging technology with Axis’s network video processing technologies and Milestone’s video management software has enabled Canon’s solutions business to expand within this field. Canon network cameras are used not only for security, but also for monitoring at sports matches and other events, at manufacturing sites and by businesses using big data to perform marketing analysis.

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Modern retail photo businesses receive orders both in-store and online for services ranging from ordinary printing to photo album creation. Thanks to such technologies as our proprietary high-density print heads, Canon’s commercial photo printers produce both exquisite photos and high-definition text. Our commercial photo printers also deliver high image quality and productivity, earning acclaim from retail photo professionals for helping them share the joy of printing and album creation with customers.

Thanks to their appealing design, thinness, flexibility and low power consumption, demand is rising for Organic LED (OLED) panels for smartphones and televisions. Canon Tokki leads the world in OLED panel manufacturing equipment, boasting unrivalled technology for the vacuum evaporation equipment used to deposit organic material onto panel substrates and automated supply lines for glass substrates. While boosting their production capacity, they are pursuing development to meet future demand for larger, higher-resolution panels.

Capable of three-dimensionally recognizing the position and orientation of objects with high speed and high resolution, Canon’s 3D machine vision systems serve as the “eyes” of robots. We have commercialized a system for automating parts supply on production lines utilizing robotic arms, helping to increase the productivity of such manufacturing industries as automotive, automotive parts and electronics. We are also accelerating R&D into 3D machine vision applications for automating assembly processes and defect inspections.

Year by year, Canon continues to strengthen its presence in the field of industrial equipment for manufacturing. We have integrated technologies developed by such Canon Group companies as Océ, Axis Communications and Milestone Systems with the optical and image processing technologies Canon has cultivated over the years. Meanwhile, we continue promote the development of next-generation technologies.
Office

Canon strives to make office work easier and more efficient. Addressing business needs in the age of cloud computing, we provide high-image-quality output, comprehensive network connectivity, and high-added-value software solutions. With technologies that offer outstanding cost performance and environmentally friendly operation, we propose optimized solutions that enhance the productivity of every client.

Office Multifunction Devices

Copying, printing, scanning, and more. A single Canon office multifunction device can handle it all. We do not simply design easy-to-use devices—we have expanded network connectivity to computers, other multifunction devices and the cloud to enhance productivity in the office. Comprehensive information security features include safeguards against unauthorized access and information leakage. Our office multifunction devices feature space-saving designs, low energy consumption and quiet operation, helping offices run more smoothly.

Laser Printers/Laser Multifunction Printers

Smart and compact, Canon’s laser multifunction printers are widely used in offices, schools, restaurants and other businesses. While delivering superior basic functionality including high image quality and ease of use, these devices also offer such advanced features as direct printing from smartphones and tablets. Canon is also a leader on the environmental front with such innovations as on-demand fixing technology, which reduces power consumption, and our toner cartridge recycling program launched in 1990.

Multimedia Projectors

Multimedia projectors have experienced incredible growth in recent years. In addition to the higher image quality and image resolution represented by 4K, technological innovations have also made possible increased brightness and shorter throw distances. Canon’s rich product lineup extends from short-throw and portable models to state-of-the-art laser light source projectors that can display realistic 4K images for digital signage and projection mapping.

Large Format Inkjet Printers

Canon large format inkjet printers serve a wide range of printing needs, from poster production to CAD applications. Featuring ultra-high nozzle density print heads, our printers realize both high-speed output and exceptional print quality with sharp text, fine line reproduction and vivid color. What’s more, these printers offer features that contribute to high productivity, including dual media rolls and hot-swap ink tanks, which can be exchanged during a print job if a device runs out of ink.

Business Inkjet Printers

Capable of copying, printing, scanning and faxing, Canon’s compact, feature-rich business inkjet printers support a wide range of SOHO needs. In addition to high-speed output and pigment inks that produce vivid color documents, large-capacity ink tanks lower running costs and raise work efficiency thanks to less frequent need for replacement. And thanks to reduced power consumption during standby, our inkjet printers also help businesses lower energy costs.

Calculators

In 1964, Canon introduced the world’s first 10-key electronic calculator. Thus began a tradition of innovation that continues at Canon Electronic Business Machines (HK), which develops, manufactures and markets personal information products. The extensive product lineup includes business-use printing calculators, antibacterial calculators for use in medical facilities and restaurants, calculators with one-touch cost-sell-margin calculation functions and scientific calculators that perform fraction and function calculations.
Canon’s Cinema EOS System has earned a sterling reputation throughout the film industry, from the directors of major Hollywood productions to the creators of small-scale, one-person projects. Thanks to their combination of outstanding image quality and compact designs, our digital cinema cameras and EF cinema lenses have breathed new life into the film industry. We are also responding to the latest advances in resolution, from 4K/HDR to the coming generation of 8K.

One of the key requirements of displays used for professional video production is faithful color reproduction. Canon’s 4K reference displays feature a proprietary image-processing engine for faithful reproduction of 4K/HDR images. They are used on-location in broadcasting vans and studios, and in video editing environments to fine-tune colors and tones to confirm that the desired quality has been achieved. We have also set our sights on the future, pursuing development to support next-generation video technology and 8K.

The Canon EOS series was launched in 1987. Even in today’s digital age, the EOS system’s speed, ease of use and image quality has the overwhelming support of professional photographers in such fields as sports, journalism, fashion, advertising and nature, all of whom strive to capture the perfect moment. From ultra-wide angle to ultra-telephoto, Canon EF lenses expand the possibilities of visual expression. Forever pursuing new advancements in camera technology, we continue to earn the trust of demanding professionals.

Canon professional inkjet printers deliver accurate color reproduction as well as stunningly rich black tones and smooth gradation in dark shadows. The high-quality output meets the strict demands of professional photographers and graphic designers. Canon’s latest advances in core technologies, including print heads and inks, raise the bar in productivity and color reproduction consistency. Additionally, printing is possible on a wide selection of paper types.

Canon’s broadcast lenses are a leading choice for television stations and video production around the world. For news, sports broadcasting and all types of productions where failure is unacceptable, we maintain a high market share. In addition to high image quality, our equipment is preferred for such advantages as their compact, lightweight designs that ensure easy mobility, proprietary Optical Shift Image Stabilizer for smooth framing and high-speed autofocus. Looking ahead, we are committed to 4K and the coming 8K generation.

Advantages of digital radiography (DR) include reduced X-ray exposure for patients and the ability to immediately examine the images. In 1998, Canon launched a DR system that digitizes the X-ray image and instantly displays it on a monitor. Since then, we have continued to expand our lineup of innovative products and now offer lightweight, easy-to-use wireless models and models for dynamic imaging. DR has become the standard in modern healthcare, supporting efficient diagnosis in an increasing variety of medical settings.

In the fields ranging from imaging, photography and movie production to graphic design and even healthcare, all top professionals demand the best in performance and reliability. Canon technology and quality continues to evolve, tried and tested by professionals whose art and skills continue to evolve.
Our founding policy of making the best possible cameras with our own hands is also the basis of the Canon EOS series of interchangeable lens digital cameras. Our ideal: that you can capture your moments more easily and more beautifully. Canon's wide range of interchangeable lenses are simple and easy to use so that even beginners can shoot high-quality photos. And as we add new models to our mirrorless camera lineup, we are empowering photo lovers everywhere to discover the joy of photography.

Canon binoculars provide a clear and stable picture of small objects, such as wild birds, in the far distance. A conventional problem with binoculars is that as magnification increases, the effects of hand shake also increase, which diminishes the sharpness of the image. Canon's proprietary optical Image Stabilizer (IS) provides the solution to this problem. With rugged designs for convenient outdoor use, our binoculars feature a shock-resistant body and an ergonomic design that helps users keep a steady hand.

For users who want to keep more than just data, Canon offers services that make it easy to preserve precious memories in photo albums. We offer various photo book services to suit a variety of needs and budgets, including an app-based service that automatically organizes and arranges photos sent via smartphone or PC. Using this service, anyone can create a high-quality photo book with ease.

We do not compromise in our pursuit of convenient printing of ever more vivid photos and sharper text. With Canon inkjet printers, users can connect wirelessly via smartphones and tablets to print directly, without the need for a computer or complicated settings. Large touch screens and user-friendly interfaces make operation easy. For users who print in large quantities, we offer large-capacity ink tanks that contribute to low running costs.

With Canon’s Selphy compact photo printer, users can easily print photos captured by cameras and smartphones while on the go. The high image quality even ensures the beautiful reproduction of skin tones, and the specially coated photo paper protects against water and dirt. Photos can be output at various sizes, including business cards and postcards, or as stickers that can be used to decorate notebooks and diaries or given away to share the joy of photography. All of this is made easier thanks to a large touch screen panel.

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Canon Europe operates in approximately 120 markets throughout Europe, the Middle East and Africa (EMEA). With a focus on its customers, the company continues to strengthen its existing businesses while building on new growth areas. In 2017, Canon Europe strengthened its sales channels and implemented proactive business strategies to enter such markets as mobile printing and cloud video management as a service.

Business will further be enhanced with the new “See the Bigger Picture” B2B brand platform. For its consumer-focused businesses, Canon Europe will promote the value of capturing, saving and sharing images under the theme “Live for the Story” while marketing its brand at such industry events as the Photokina 2018 imaging expo.

The Canon Asia Marketing Group (CAMG) oversees operations in China, South Korea, South Asia and Southeast Asia. Last year, six companies from the Group held anniversary celebrations, including Canon China (20th) and Canon Hong Kong (45th). The burgeoning Indian market has contributed to robust growth in Canon’s overall business in Asia. The Group has also initiated a region-wide project with the aim of enhancing the Canon brand’s reputation and boosting the sales of such products as office multifunction devices and commercial-use printers. Under the slogan “Business can be Simple,” CAMG is striving to expand the scope of B2B marketing and sales activities. In the Oceania region, Canon has strengthened its B2B offerings through M&A.

Canon U.S.A. oversees operations in North, Central and South America. In the past year, the company has strengthened its e-commerce initiatives through customer-oriented marketing activities, leading to increased market share for both existing and new businesses. To better meet the needs of film and television industry professionals and visual content creators, service and support operations have been consolidated at a central location in Burbank, California. In the office equipment business, the company has built a strong direct-sales network while implementing a new management and support system that organizes the Americas into four regions. By strengthening partnerships with its approximately 400 dealers across the region, Canon U.S.A. is responding more attentively to customer needs.

The Canon Marketing Japan (CMJ) Group not only handles marketing activities in Japan, but also promotes businesses which leverage the combined strengths of the Canon Group to develop leading-edge imaging and IT solutions that help tackle the challenges of today’s society. While providing support for Canon brand businesses including cameras, office equipment and commercial printing, the Group continues to develop its own businesses in such fields as security and business solution services. In 2018, the CMJ Group will celebrate its 50th anniversary. With the aim of becoming more responsive to customer needs, the Group has undertaken structural reorganization and today works more closely with its customers, conducting business activities that ensure mutual growth.

Canon marketing subsidiaries and affiliates worldwide provide our products, services and solutions to customers through various sales channels. Our supply chain management enables the close coordination of operations from development to production. We continue to develop our global network, which can provide customers around the world with what they need, when they need it. Canon subsidiaries and affiliates also channel valuable customer feedback to our product developers.

Marketing
Research & Development

Throughout our over-80-year history, the advancement of technology has been at the core of our corporate DNA. Today, Canon R&D is bringing innovation to such fields as healthcare and industry. Our approach involves open innovation with top universities and research institutes, which leads to new applications for our proprietary core technologies and new solutions that enrich people’s lives.

Expanding the use of CMOS sensors to various fields

Canon develops CMOS sensors in pursuit of higher levels of sensitivity and resolution. A key device in digital cameras, these sensors are the fruit of the technological expertise we amass from development to manufacturing that keeps us on the leading edge. Today, we are developing new applications for our CMOS sensors in fields ranging from security and healthcare to space observation.

Diagnostic imaging support improves physicians’ diagnosis accuracy

Canon is utilizing image processing and AI to develop technologies that will improve diagnostic accuracy. From CT and MRI scans, we can detect such anomalies as cancer and reference historical data to assess the specific type as well as the probability of the disease occurring. This information, combined with the physicians’ conclusion, makes possible higher diagnostic accuracy.

HDR technology draws from light and dark to produce clear images

Canon’s High Dynamic Range (HDR) technology enables the production of clear images in high-contrast scenes—scenes with both dark shadows and bright highlights. By merging multiple images taken at different exposures into a single frame with the contrast adjusted, this technology can produce natural-looking images of people even in backlight scenes or in strong sunlight.

Photoacoustic tomography: a new technology for examining blood vessels

Photoacoustic tomography (PAT) enables physicians to “see” blood vessels without the use of X-rays or contrast agents. When tissue is exposed to a pulsed laser, hemoglobin emits ultrasonic waves, which can be reconstructed into 3D images that show blood vessels. As part of a Japanese government program, we are conducting clinical research with Kyoto University and Keio University into the use of PAT for skin grafting and the early detection of cancer.

Materials research helps ensure unique-to-Canon products

To improve the competitiveness of Canon products, we undertake research into the materials used in such areas as optical glass, colorant and toners. Our research into lead-free materials extends beyond solder and the optical glass for lenses to include piezoelectric materials used for motors and sensors. With our inkjet printer ink, we have succeeded in commercializing a new magenta dye that enhances image quality.

Free Viewpoint Video System immerses viewers in the experience of watching sports

Canon is developing a Free Viewpoint Video System, which produces a realistic, immersive viewing experience, giving viewers a sense that they are really there. Multiple cameras placed around a stadium capture images and an image processing computer system renders them into 3D spatial data. Canon is offering innovative new ways to enjoy visual content by producing viewing experiences that can be seen from various angles and viewpoints.

Visual inspection technology enhances the productivity of factory automation

The overall quality of parts and products are reflected in their exteriors. Detecting and identifying abnormalities such as scratches and uneven color is an important step in quality assurance. Utilizing AI, Canon has developed technology that learns the normal appearance of parts and automatically detects abnormalities. This not only reduces the workload on inspectors, it improves the consistency of inspection to increase manufacturing productivity.

Designing usability that exceeds expectations

Based on universal design principles, Canon takes the needs of all kinds of users into consideration when designing products. In the design process, we adopt a wide range of criteria—including subjective evaluation, observation and measurement data—to ensure that our products are easy to operate, even for people with disabilities. We also consider our customers’ daily lifestyles to discover design solutions that make our products comfortable to use by all.

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Manufacturing & Quality

Canon is committed to promoting a globally optimized production system consistent with the development of manufacturing engineering skills. Through advancements in automated manufacturing technology and IT, we strive to achieve efficient and high-quality production. As a trusted brand, we value quality above all else and continue to strengthen our capabilities in R&D, procurement, production, sales and support services.

Extending automation and in-house production to manufacturing systems and software

To produce high-quality products efficiently and cost-effectively, we closely coordinate product development, engineering and manufacturing—enabling us to maintain highly reliable automated production lines that can operate non-stop. We are also focusing on implementing fully automated productions lines. We are pursuing in-house production of key devices, components, equipment and molding dies, allowing us to create innovative and original products.

Delivering Canon quality worldwide through globally optimized production

Canon employs a globally optimized production system in which we determine ideal production locations based on such factors as costs, taxes, logistics, and labor. Our aim is to leverage the strengths of each region. In Japan, we are promoting automation, while in the United States and Europe, we are accelerating the localized production of consumables and other products, and in emerging regions, we are boosting productivity by honing our employees’ skills.

Prioritizing advanced manufacturing technology in our business

Advanced manufacturing technology is crucial to the development of original products. At Canon, we regard the strengthening of our manufacturing technology to be one of our most vital business efforts. We are proactively pursuing development of such production systems as automated assembly and high-precision processing machines as well as molding dies. By consolidating these processes in-house, we are striving to improve quality and reliability.

Ensuring Canon quality through stringent inspection standards

We are committed to producing "no claims, no trouble" products that meet the high standards of Canon Quality. In each of our businesses, we conduct stringent testing to ensure that our products are safe and can be enjoyed with peace of mind. Canon has one of the largest and most advanced anechoic chambers in Japan to conduct testing on large products, as well as facilities for noise, fire resistance and electromagnetic radiation testing.

Canon Meisters and Master Craftsmen: demonstrating excellence

To encourage advancement in manufacturing engineering, Canon honors our most skilled technicians by awarding them the title of Master Craftsman, while those who contribute to Canon production through their skills and knowledge of assembly and component processing earn the title of Meister. These technicians are the vanguard of Canon’s production improvement and play the important role of passing on their expertise to the next generation.

Developing human resources to pass along expertise to the next generation

Canon conducts human resource training to nurture the skills of employees at our production sites worldwide. Our programs teach manufacturing techniques and craftsmanship and train employees with leadership potential in Canon management methods. Young technicians test their abilities by competing in Japan’s National Skills Competition, where they earn awards and cultivate a spirit of challenge that is reflected in our manufacturing.

Miyazaki Canon: a new plant for digital camera production

Canon is building a new plant for digital camera production in Miyazaki Prefecture, due to commence operations in August 2019. Utilizing automation technology cultivated at Oita Canon, our primary camera plant, Miyazaki Canon will pursue even greater efficiency as a new "ideal factory." Once completed, the new plant will collaborate with nearby Oita Canon and Nagasaki Canon to form a robust manufacturing system in southern Japan.

Protecting our customers and the environment with strict safety assessments

Going beyond legal and regulatory requirements, at Canon, we have our own strict safety standards to ensure that our products can be used with peace of mind. We conduct quality and safety assessments for inks and toners, while for such genotoxic substances as carcinogens, we conduct stringent micro-nucleus tests using cultured cells at our government-certified testing laboratories. All of this is part of our thorough system to ensure product safety.
Environment & CSR

Under our corporate philosophy of kyosei, Canon undertakes efforts around the world to realize sustainable societies and enriched lifestyles. To fulfill our responsibility as a global corporation, we strive to reduce our impact on the environment by developing superior technologies and products, while providing support for social, educational and cultural activities.

Contributing to a low-carbon society through the reduction of CO₂ emissions

Canon is helping to realize a low-carbon society by reducing CO₂ emissions throughout the entire product lifecycle—from use of raw materials, operational site activities, and distribution to product use, disposal, and recycling. Our energy-saving technologies, such as induction heating and on-demand fixing for multifunction devices and laser printers, help reduce energy consumption in offices around the world.

Recycling toner cartridges and contributing to a circular economy

To ensure the efficient use of limited resources, Canon has implemented sophisticated product recycling programs that involve the collection and recycling of many materials. In 1990, we initiated our Toner Cartridge Recycling Program, a closed-loop recycling system in which we collect used toner cartridges, recycle the plastic obtained from them, and create materials for new toner cartridges.

The Tsuzuri Project: providing high-resolution facsimiles of precious cultural assets

Launched by Canon and the Kyoto Culture Association (NPO), the Tsuzuri Project conducts activities to preserve cultural assets. Joining Canon’s cutting-edge digital technologies with the traditional craftsmanship of Kyoto, the project produces high-resolution facsimiles of precious cultural assets. These facsimiles are used for public display in place of the originals, which can then be preserved in environments that prevent further deterioration.

Reducing hazardous substances and preventing pollution to lessen environmental burden

To ensure the control of chemical substances used in our products, Canon requires our suppliers to comply with our Green Procurement Standards. Furthermore, we proactively contribute to the international standardization of sharing information on chemical substances throughout the supply chain. Canon strictly complies with emission standards and controls the use of chemical substances for such manufacturing processes as coating and cleaning.

Bird Branch Project: aiming to preserve biodiversity

In 2015, Canon launched the Bird Branch Project to spread environmental awareness. Using birds to symbolize the cycle of life, the project aims to conserve biodiversity. At Canon Global Headquarters in Tokyo, we hold such activities as bird surveys and a monthly spot census of wildfowl on the company grounds. Based on this project, we are creating a model for ecosystem conservation activities that can be introduced throughout the Canon Group.

Supporting NCMEC activities to rescue missing children

Since 1997, Canon U.S.A. has provided support for the National Center for Missing & Exploited Children (NCMEC), an NPO that assists in finding and rescuing missing children as soon as possible. So far, over 2,500 Canon products, including digital cameras and printers, have been donated to law enforcement agencies. Canon U.S.A. also supports fundraising activities and presents a donation every year during a special event at Yankee Stadium.

Nurturing the creativity of youth through international programs

Canon Europe operates the Young People Programme, empowering youth with the skills and tools needed to harness the power of positive visual storytelling and drive social change. In African markets, we have expanded the Miraisha Programme, which aims to improve skills and increase employment opportunities for local people in Africa’s growing photography, videography and print industries.

Friendship School Chain Project: improving educational environments

This project helps improve educational environments in economically disadvantaged areas of Vietnam. Thus far, we have provided support to over 90 schools through such efforts as school construction and renovation; donations of supplies, including desks and chairs; and scholarships for outstanding students. Canon staff also visit the schools and interact with the children, building stronger bonds with the local communities and with each other.
**Top ten U.S. patent holders by company (2017)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Organization</th>
<th>Number of patents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IBM</td>
<td>9,043</td>
</tr>
<tr>
<td>2</td>
<td>SAMSUNG ELECTRONICS</td>
<td>5,857</td>
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<tr>
<td>3</td>
<td>CANON</td>
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<td>4</td>
<td>INTEL</td>
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<td>5</td>
<td>LG ELECTRONICS</td>
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<td>6</td>
<td>QUALCOMM</td>
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<td>GOOGLE</td>
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<td>8</td>
<td>MICROSOFT TECHNOLOGY LICENSING</td>
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<td>TSMC</td>
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<tr>
<td>10</td>
<td>SAMSUNG DISPLAY</td>
<td>2,273</td>
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*Canon Europe provides over Europe, the Middle East and Africa.

**FORTUNE Global 500**

<table>
<thead>
<tr>
<th>Rank</th>
<th>(Net sales)</th>
<th>Global ranking</th>
<th>(Net income)</th>
<th>Global ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$9,101 million</td>
<td>347 (332nd in ’16)</td>
<td>$2,141 million</td>
<td>281 (236th in ’16)</td>
</tr>
</tbody>
</table>

**Sales ratio by business unit (2017)**

<table>
<thead>
<tr>
<th>Business Unit</th>
<th>Office</th>
<th>Imaging System</th>
<th>Medical System</th>
<th>Industry and Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio</td>
<td>45.7%</td>
<td>27.8%</td>
<td>10.7%</td>
<td>17.9%</td>
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</tbody>
</table>

*Note: Numbers of employees and consolidated subsidiaries as of December 31, 2017.**

**Note:**
- U.S. dollar amounts are translated from yen at the rate of JPY 113 = U.S. $1, the approximate exchange rate on the Tokyo Foreign Exchange Market as of December 29, 2017, solely for the convenience of the reader.

**Note:**
- Figures were based on preliminary data released by IFI CLAIMS Patent Services, a U.S. research company specialized in patent information.