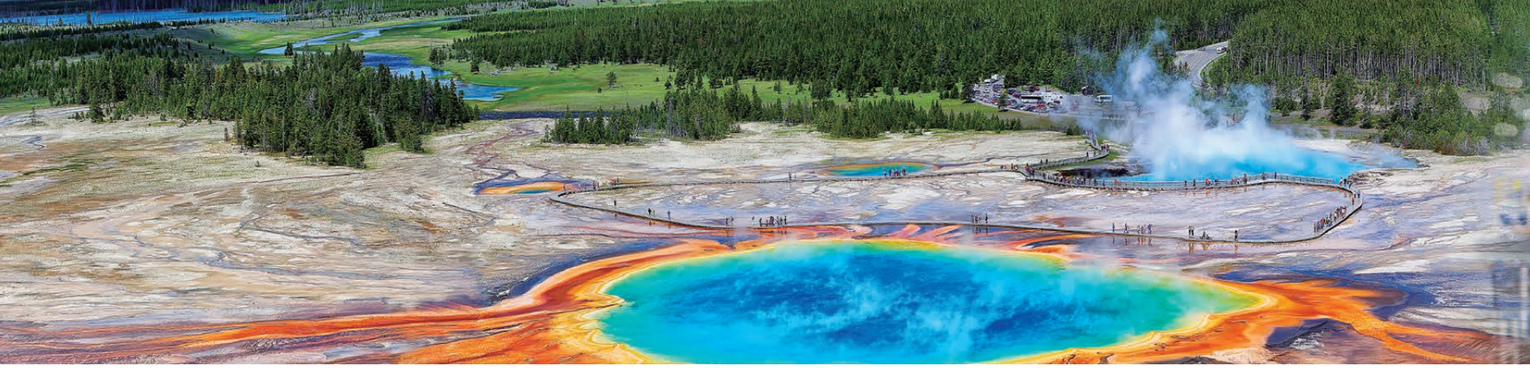
THE CANON STORY

2022/2023

The world's infinitely expanding possibilities

By seeing the world from ever new perspectives and giving vivid shape to ideals,
Canon hones its imaging technology and offers new perspectives to society.
With the dramatic changes occurring in the world today, imaging technology presents endless possibilities.
While continuing to evolve and assume vital roles in fields ranging from medical care to security, commercial printing and industrial equipment, Canon will strive to reinvent itself and work to expand the possibilities of people and society.



Corporate Philosophy

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 humankind 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 San-ji (Three Selfs) Spirit

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

Anticipating social change, we will transform, boldly press forward and become a truly excellent global corporation

The COVID-19 pandemic has shaken the world and greatly altered people's values and lifestyles. Meanwhile, technology is progressing ever more rapidly. With AI, IoT, the Cloud and 5G at the forefront, innovations produced from the merging of wisdom and technology stir the changes society experiences and continue to move the world.

In 2021, Canon launched Phase VI, the latest five-year medium- to long-term management program that comprises the Excellent Global Corporation Plan. We have realigned our organization, including Group companies, into four industry-oriented business groups—printing, imaging, medical and industrial—with the goal of expanding our business. Amid the need to solve increasingly complex and diverse social issues, each group, through activities such as M&A, is striving to produce innovations that will support richer, more comfortable lives, thriving business environments, and a more secure society. Furthermore, we are striving to improve group-wide productivity by optimizing Canon's global headquarters functions. Meanwhile, we will secure our future by accelerating the commercialization of solutions that utilize the technologies and know-how we have cultivated in a wide range of fields.

Change is progress. Transformation is advancement. With Canon's corporate DNA of enterprising spirit and the San-ji (Three Selfs) Spirit, which has been passed down since our foundation, and under our corporate philosophy of *kyosei*, Canon will always contribute to society with our technologies, continually work to transform our business and take on new challenges while seeking to become a truly excellent global corporation that is admired and respected around the world.

We look forward to your continued support and cooperation.

Fujio Mitarai
Chairman & CEO
Canon Inc.

Excellent Global Corporation Plan

Phase VI 2021–2025

In 1996, Canon launched the Excellent Global Corporation Plan, a medium- to long-term management program focused on major reforms and ambitious objectives, with the goal of becoming a truly excellent company that is admired and respected around the world.

In 2021, Phase VI of the plan commenced under the policy of accelerating the corporate portfolio transformation by improving productivity and creating new businesses and to this end various activities are underway.

Key Strategy 1

Thoroughly strengthen the competitiveness of industry-oriented business groups

- Expand and reorganize the entire company, shifting from product-oriented groups to four industry-oriented groups
- Strengthen the organization by reviewing the technical capabilities and business areas from a group-wide perspective
- Improve development and production within each group and create new businesses while also pursuing M&A and related business

Printing Group

Leveraging strengths in digital printing technology and its global sales and service network, Canon aims to become the global leader in office and home printing solutions in the DX era. Furthermore, the company plans to further expand its commercial printing business and fortify its industrial printing business. (See p. 11 for business information.)

Imaging Group

Canon will expand its imaging business by broadening the conventional camera industry to include the optical industry. Along with being No. 1 in mirrorless cameras, the network camera business is being expanded. New video experience markets such as XR are also being developed and Canon is entering the mobility field. (See p. 15 for business information.)

Medical Group

Canon will strengthen its competitiveness and U.S.-centered sales network in such core product categories as CT, MRI and diagnostic ultrasound systems. The goal is to be No. 1 in CTs and a leading manufacturer of other diagnostic imaging systems. The healthcare IT and in-vitro diagnostics businesses will be further expanded. (See p. 19 for business information.)

Industrial Group

To meet the growing demand for semiconductor and display manufacturing systems, Canon is expanding its production system for such equipment and is strengthening its customer support organization. Next-generation nanoimprint lithography manufacturing technology is also being developed with the goal of early commercialization. (See p. 23 for business information.)

Frontier Business

Building on the foundation of its existing technologies, Canon is exploring new business in the fields of life science, materials and solutions. The aim is to develop strong new businesses by sharply defining the target markets through targeted "selection and concentration."

Key Strategy 2

Improve group-wide productivity through extensive reinforcement of Canon's global headquarters function

- Reinforce central functions to support growth strategies of industry-oriented groups

Thorough cash flow management

Renewed focus on thorough cash flow management undertaken to reinforce Canon's solid financial foundation in preparation for a major investment or a future economic crisis. Accelerated debt repayment associated with M&A to ensure a strong financial position.

Promote cost reduction initiatives across the whole Group

Canon pursues cost reduction through the adoption of automation and in-house production, which includes production technology, development, design, procurement and factories. The company also strives to realize a globally optimized procurement network and streamlined logistics.

Establish a more dynamic and merit-based HR management system

In line with diversifying employment and work styles, Canon has implemented a HR management system to boost employee productivity. Through training programs aligned to the business portfolio and an in-house career shift system, Canon assigns each person to the most suitable role.

Focus on innovations for new product development and respond to dramatic changes in the business environment

While further strengthening the headquarters' R&D functions, which contribute to the profitability of each industry group, Canon will promptly respond to changes in the business environment such as carbon neutrality and ensure economic security across the entire company.

Phase I 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.

Phase II 2001–2005

Aiming to become No. 1 in all major business areas, Canon focused on strengthening product competitiveness and stepped up efforts to digitize products. The company also conducted structural reforms across all Canon Group companies around the world.

Phase III 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.

Phase IV 2011–2015

Canon's management policy has shifted from a strategy targeting expansion of scale to one aimed at further strengthening the company's financial structure. Through M&A activities, the company's business was restructured at the foundational level to introduce new growth engines for future expansion.

Phase V 2016–2020

Pursuing new growth, Canon initiated expansion of its four new businesses and completed the first stage of the grand strategic transformation, which involved transitioning the company's business portfolio.

Management targets (2025)

Net sales	¥4.5 trillion or more
Operating profit ratio	12% or more
Net income ratio	8% or more
Shareholders' equity ratio	60% or more

*Based on exchange rates of USD = ¥105, EUR = ¥120

PRINTING

Customers no longer need to choose between offset and digital printing

Customer demands for high print quality regardless of the technology

Kampert-Nauta is one of the leading printers in The Netherlands. With a hybrid technology set-up consisting of both offset and digital printing presses, in addition to wide format printing systems, Kampert-Nauta produces a wide range of applications, including flyers, posters, business cards, brochures and specialized greeting cards.

With a heritage in offset printing, output quality was a deciding factor for a new investment. At Kampert-Nauta, an automated print job management system that determines whether a job is printed on offset, toner or inkjet, based on the run length, volume, application and media type has been implemented. As it has enabled them to remove the manual intervention from their process, they need to be certain that, regardless of the printing technology used, customers cannot tell the differences in quality.

The quality of offset printing with the unique advantages of digital

In May 2020, Kampert-Nauta became the first company worldwide to install a varioPRINT iX3200 sheetfed inkjet press.

They have been very impressed with the output from the varioPRINT iX3200, which they can confidently say matches that of offset and surpasses that of other digital technologies that they have previously used.

Feedback from customers has also been positive. Many of their customers, particularly webshops, were moved by the excellent quality produced on the varioPRINT iX3200. In addition to the huge strides in quality, they are also happy with the robust and stable operation of the varioPRINT iX3200 which has enabled them to significantly reduce downtime and the need for reprints while keeping quality consistent from start to finish. Since the installation of the press, they have been migrating jobs from offset to inkjet, which has led to a substantial reduction in turnarounds.

Kampert-Nauta is successfully responding to the growing demand for quick turnaround while achieving both high print quality and automated workflow ensuring that operator intervention is significantly minimized. At long last, digital inkjet printing is beginning to show its true worth.

Top: Operator workloads have been reduced at Kampert-Nauta's factory
Left: Greeting card produced in combination with an embellishment enhancement press
Right: A final check on the print quality

Essential multifunction device features including quietness and high-speed scanning have been enhanced in the imageRUNNER ADVANCE DX series

PRINTING GROUP

Freedom to print, aligned with modern remote-working lifestyles

Value-added printing: as much as you need, whenever you need it

The so-called "new normal" includes growing demand for remote working and co-working spaces. At the same time, the lifestyles and workstyles of people who previously worked in offices are becoming more diverse.

There is growing demand for printing at any work place. Yet, the value of hard-copy printing, which supports the intellectual activity of human beings both for the enjoyment of life and for collaborative work, remains unchanged.

Canon offers two main digital printing technologies, electrophotography and inkjet, both of which the company has developed from the ground up. As IT development progresses and society shifts more towards cloud computing, Canon will further enhance its security and content-on-demand technology for anytime printing so people can print various content instantly and safely from anywhere.

The value of paper is apparent in collaborative work

Leading digital transformation in the office

The digital transformation (DX) in office work is accelerating across many industries. In the first stage of DX, which involved the digitization of paper documents, Canon developed network-enabled office multifunction devices (OMDs) offering quieter operation and high-speed scanning. Later on, Canon seamlessly integrated its multifunction devices with cloud services, which serve to reduce the workloads and improve the workflows of its customers. In such ways, Canon continues to create new value for the DX age.

Accessing the cloud directly from the operation screen

Inkjet printers play an important role in telework

Easy to print regardless of where you work

As time spent at home has increased, so has home printer use. Canon's print management technology, originally cultivated for office use, has been revamped for home use with greater focus on security. Offering a wide lineup of large-capacity inkjet printers and small-sized laser printers, Canon is committed to ensuring a full-functioning printing environment for the home.

Canon's laser OMDs with one-pass duplex scan capability deliver high-speed scanning

Continuous feed presses deliver super-fast print speed and high image quality

Digital printing advancements bring more variety to commercial printing

In response to demand for short-run production, quick turnaround times and variable data printing, which allows individual pages to be customized, the field of digital printing has grown to encompass the production of books, catalogs, posters, transactional applications and more.

Canon's expansive lineup of printers includes continuous feed presses that provide over 100 meters-per-minute high-speed printing on paper rolls; sheet-fed presses that print on standard size paper; and large-format printers for media such as posters. Canon remains focused on providing a lineup of printers that accommodates a wide range of business needs.

Digital printing serves various business needs including short-run, wide-variety printing

Digital printing continues to expand in the industrial printing market

Industrial printing encompasses the printing of labels and packaging for food, beverages and household items; wallpaper and building materials; and film wrap that serves as an alternative to painting. Digital printing's share of the print market is growing. Canon has produced many highly praised systems including label printers and large-format printers that employ UVgel ink, which has excellent durability. Together with Canon Production Printing, Canon will continue to expand its business by creating high-quality, high-productivity digital printers for industrial printing.

Digital printing is used extensively for label printing

Printing Group main products

Office multifunction devices / Document solutions / Laser printers & multifunction printers / Inkjet printers / Calculators / Continuous feed presses / Sheet-fed presses / Large-format printers and more

High-definition network camera installed near the school's main gate

IMAGING

For a campus where students, faculty and local residents feel safe and secure

This vast campus is a familiar landscape to the local community

Seikei Gakuen, located in Tokyo, is a huge educational facility with more than 10,000 students from elementary school to university and graduate school, all studying at one campus. The school grounds have stood here for about 100 years. With its open-gate policy that allows local residents to freely enter and pass through the grounds, the school is a friendly part of the local community.

To keep the vast campus both safe and open to the public, Seikei Gakuen had installed surveillance camera systems in each building. With those systems, however, the school faced a number of issues such as a lack of centralized locations for viewing videos and poor image quality unsuitable for the identification of license plates of incoming vehicles.

Watching over campus life and playing a role in crime prevention

As safety is a leading concern for schools today, Seikei Gakuen turned to Canon to implement a network camera system that could resolve those issues. Now, including the already installed surveillance cameras, a total of 44 cameras are centrally managed. In addition to being able to switch between all the camera feeds and check the video in real time, information can be instantly shared with the guards and other responsible parties, so that first response measures can be enacted swiftly in the event of an abnormality. Moreover, the usability of the system has been greatly improved. Searches can be executed, narrowing down footage to only the sequences in which movement has occurred. This has eliminated the need to spend hours searching through individual camera videos. Canon's high-image-quality network cameras at the school gate make it possible to record suspicious movements clearly. In addition, the guard station is equipped with a number of monitors that display camera footage from all around the campus. Canon's technology provides peace of mind to students while assisting in crime prevention by signaling to outsiders that danger and crimes will be noticed and recorded.

Footage from cameras around the school is randomly displayed in the guard station

Network camera painted to match the surrounding décor, helping students feel at ease

EOS R5 full-frame mirrorless camera for high-quality photography of all kinds

IMAGING GROUP

Imaging for richer life and culture—the possibilities today extend far beyond the conventional realm of cameras

Optics is a key technology for future society

Canon's technology, even as it continues to advance the spheres of cameras and imaging, is rapidly evolving into a pillar of digital society. Examples include onboard cameras, which are vital for autonomous driving; the "eyes" of robots; factory automation; VR, AR, MR; and much more.

From production sites and distribution to everyday life, Canon's optical, sensor, image processing, video analytics and network technologies are advancing as visual solutions that address social issues, deliver new experiences of happiness, and contribute to a sustainable future for society.

Network cameras will be a fundamental part of Smart City infrastructure

Keeping watch over our society while assisting crime prevention, traffic control and river surveillance, network cameras are already a key part of our infrastructure. Under the Smart City concept taking root worldwide, network cameras will play an increasingly critical role in infrastructure by predicting and preventing traffic and crowd congestion, accidents and disasters.

Canon has developed network cameras as a new business and will further advance leading-edge technologies such as AI while working to make Smart Cities a reality. At the same time, with solutions for in-store and event marketing, automation and more, Canon is contributing to the digital transformation of society.

Network cameras serve many purposes in diverse locations

PowerShot PICK concept camera detects faces and shoots automatically

Never forgetting that "Canon is cameras"

Canon's evolution continues in the camera business on which the company was founded. The EOS series of interchangeable-lens cameras—including increasingly popular mirrorless cameras, which have earned accolades for high speed, ease of use and high image quality—meets the strict demands of professionals and further expands the possibilities of visual expression for all. As more and more people enjoy shooting photos and videos, Canon has adapted by developing a concept camera that identifies smiling faces and shoots automatically, and with contributions such as new photo cloud services. To further expand Canon's business and maintain its position at the forefront of the imaging industry, Canon has launched a new VR imaging production system.

Canon supports the work of video production professionals

The Canon brand has earned the trust of video production professionals globally with a robust lineup of broadcast equipment, including the lenses that TV stations and production teams around the world rely on. To support the strict standards of working professionals, Canon's extensive lineup includes digital cinema cameras renowned for outstanding mobility and operability, and professional displays that video production professionals depend on for accurate color reproduction.

With high operability and mobility, Canon's cinema cameras support various styles of cinematography

Today, while contributing to greater efficiency and labor reduction in video production with remotely operated cameras, Canon is pioneering new frontiers in visual expression with MR (p. 25) and volumetric video (p. 27).

Canon's 4K professional displays satisfy the strict requirements of video production professionals

Remote cameras expand the possibilities of visual expression

Comprehensive offerings from cameras to video management and video analytics

A network camera system comprises cameras; a video management system (VMS), which controls the cameras and records images; and video content analytics (VCA) software. The Canon Group possesses all three elements. Canon produces not only the cameras, but also the VCA software, which performs real-time people counting in crowds, facial recognition, and more. Axis is a world leader in network cameras. Milestone Systems' VMS supports over 10,000 models of cameras and devices. BriefCam produces outstanding Video Synopsis technology. And Arcules provides cloud-based video management services.

What's more, the Canon Group employs an open-platform approach, which enables the integration of cameras, VMS and VCA from other manufacturers. This gives Canon's partner companies around the world the freedom to build and expand their own network camera systems.

Axis (based in Sweden)

Milestone Systems (based in Denmark)

BriefCam (based in Israel)

Arcules (based in the U.S.)

Imaging Group main products

Interchangeable-lens digital cameras / Interchangeable lenses / Network cameras / Digital camcorders / Digital cinema cameras / Broadcast equipment / Multimedia projectors and more

MEDICAL

Reduction of catheterization testing minimizes the burden on patients

High-resolution images are vital for cardiac CT exams

CT scans enable precise examination of the body. The system comprises a device that emits X-rays and a device that rotates around the body detecting the X-rays, producing cross-sectional images of the body. Compared with images in which X-rays have been irradiated from one direction, a 360-degree CT scan greatly improves the chances of detecting abnormalities.

Patients are instructed to hold their breath and move as little as possible during the scan. The heart, however, is always moving, so it has been difficult to attain CT scans of patients with variable heart rates.

Canon Medical Systems has released the world's first[1] CT device offering 16 cm wide coverage in a single rotation. This breakthrough reduces the time needed to scan major organs such as the heart and brain, and also enables the scanning of blood flow. Over the years, Canon Medical has been at the forefront of developing and commercializing many breakthrough technologies, including a CT system that delivers double the resolution compared to conventional systems.

In pursuit of even higher resolution, Canon Medical has leveraged its advanced technologies to develop the super-resolution deep-learning reconstruction technology called Precise IQ Engine (PIQE). Deep learning[2] was employed at the design stage to develop this innovative technology, and joint development with medical facilities such as Fujita Health University Hospital has enabled the commercialization of PIQE, opening up new possibilities for cardiac CT exams.

Deep learning has made high-resolution cardiac images a reality

Fujita Health University Hospital houses 40 clinical departments and claims the largest number of hospital beds (1,376) in Japan. Providing critical medical care for the Chubu region, the hospital currently has seven Canon CT systems in operation. When collaborating with Canon Medical on the development of PIQE, which ranks as one of Japan's top achievements in cardiology, the hospital provided a clinical perspective during image evaluation.

Using Canon's world-class high-resolution CT images as a "learning" tool, PIQE is able to capture super-high-resolution images of cardiac blood vessels in a single rotation. Far sharper than previously possible, the images can clearly show the condition of a stent inside a blood vessel. The visualization of stents smaller than 2.5 mm has also improved, enabling diagnosis without catheterization. Expectations are high that PIQE will help reduce the burden and anxiety of patients around the world.

1: As of 2007 (based on a Canon Medical survey)
2: AI technology was used at the design stage of image reconstruction processing; the system does not possess a self-learning function.

Cardiac examination using PIQE-equipped CT at Fujita Health University Hospital

Canon pursues ways to lower radiation dose levels and incorporate features that reduce the burden on patients

MRI featuring quiet operation and image noise reduction based on technology using deep learning

MEDICAL GROUP

Looking to the future together with patients and medical institutions, Canon pursues new value that will contribute to healthcare

Healthcare needs continue to rise

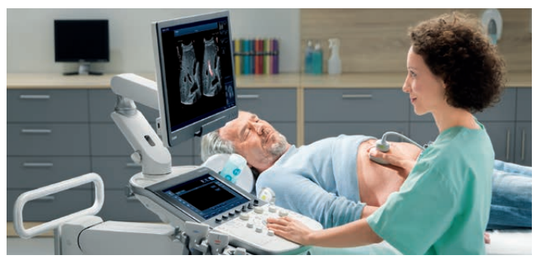
Amid the COVID-19 pandemic and such trends as the aging of societies worldwide, demand for healthcare, including health promotion and disease prevention, has become even greater. As the burden on healthcare professionals rises, the entire Canon Group is forming collaborative partnerships with medical institutions and universities around the world on medical solutions that will help realize higher-quality healthcare through leading-edge technology.

Canon Medical at the core of new business development

In response to advancements in medical care, Canon's medical business is expanding in three fields: diagnostic imaging, healthcare IT and in-vitro diagnostics. The Group company Canon Medical Systems is at the center of this strategy. Under its corporate philosophy of *Made for Life*, which expresses a commitment to contribute to medical care that protects precious lives, the company pursues technology-centered solutions at the frontlines of medical care in areas such as diagnostics and treatment. Canon Medical is committed to providing valuable solutions for both patients and healthcare professionals.

Diagnostic imaging systems also play a vital role in cutting-edge treatment

Modern advanced medical care would not be possible without diagnostic imaging. Canon Medical, which offers a wide range of diagnostic imaging systems, including CT, MRI, diagnostic ultrasound systems and



Canon Medical's diagnostic ultrasound system is widely used both for daily medical care and exams requiring precise, detailed images

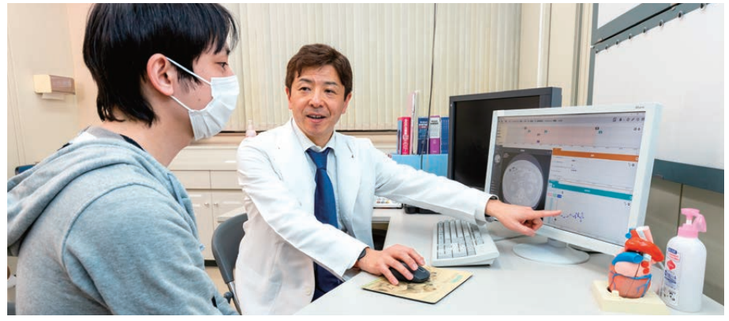
Mobile medical container CT systems hold great promise for both the treatment of infectious diseases and remote medical care

angiography systems, is breaking new ground in the early detection of diseases.

The company's new CT, MRI and PET-CT systems have image noise removal technology designed with deep learning*. This technology not only improves image quality, but also significantly decreases radiation exposure and shortens scanning times, thus reducing the burden on patients during exams and realizing more efficient advanced medical care.

Healthcare IT advances DX in medical care

As the digital transformation advances in medical care, Canon is contributing with healthcare IT that collects, consolidates, analyzes and processes patient data ranging from diagnostic images to medication history. Based on clinically collected image data and non-image data such as daily body temperature and blood pressure readings, Canon provides solutions such as diagnostic imaging interpretation* that use AI to support accurate diagnoses and treatment decisions.



Healthcare IT integrates and displays all types of data including diagnostic images

Pursuing early commercialization of a next-generation photon-counting CT

R&D at Redlen Technologies

Photon-counting CT, which can directly convert each X-ray light particle (photon) that passes through the human body into an electrical signal, is a next-generation technology that may lead to breakthroughs such as the identification of substances by color and a huge reduction in radiation dosage. Since welcoming Redlen Technologies, a Canada-based company with advanced photon detector technology, into the Group, Canon has accelerated the development of this technology and proceeded to clinical testing and verification with the National Cancer Center Japan to attain early commercialization.

Rapid antigen testing system (qualitative) for COVID-19

Promptly providing testing kits for COVID-19

Canon was one of the first companies to introduce practical in-vitro diagnostics testing kits for COVID-19. With the aim of becoming a total solutions provider in clinical testing, Canon has entered the field of peripheral products for clinical laboratory testing systems such as test reagents, and has produced an automatic clinical chemistry analyzer that can test a large number of samples in shorter time.

*AI technology was used in the development stage; the system does not have a self-learning function.

Novel coronavirus RNA detection reagent for rapid genetic testing

Medical Group main products

CT systems / Diagnostic ultrasound systems / Diagnostic X-ray systems / MRI systems / Clinical chemistry analyzers / Digital radiography systems / Ophthalmic equipment and more

INDUSTRIAL

In response to heated global demand, today's "new normal" services are expanding

Quick customer support is important even during the COVID-19 pandemic

The serious semiconductor shortage that began in 2021 has caused product shortages and sparked global inflation. Semiconductors, after all, are an integral part of our lives—essential to smartphones, PCs and automobiles as well as social infrastructure ranging from telecommunications to buildings and highways. Even before the pandemic, semiconductor manufacturers had anticipated rising global demand due to the rollout of high-speed communication technologies such as the IoT and 5G. Now, the industry is working tirelessly to enhance productivity to boost output.

Semiconductor lithography equipment, which uses light to expose electrical circuit patterns of nanometer-level line widths onto semiconductors, is a vital part of the semiconductor production process. This equipment requires regular maintenance and tuning by engineers. During the pandemic, however, engineers have been unable to regularly visit sites, which has further hindered productivity and raised the risk of breakdowns and extended outages.

Sharing information in real time with on-site locations using XR devices

Canon counts many semiconductor manufacturers as customers for its semiconductor lithography equipment. To address the servicing issues brought on by the pandemic, Canon began using XR devices to provide remote support. An XR device shares a worker's field of vision and audio at the semiconductor manufacturing site in real time with a remote Canon engineer. The engineer sends holograms of the relevant manuals and parts to the XR device and advises the worker. Wearing an XR device, the on-site staff can work hands-free, improving safety and precision. What's more, the procedures can be recorded and used as teaching material for repair work and engineer training. In this way, Canon provides effective customer service, even during difficult times.

*nm = nanometer, one billionth of a meter

A remote engineer examines the equipment and provides the relevant manuals and instructions

Wearing an XR device, an on-site worker shares system status with a remote engineer and receives holographic maintenance instructions

Canon Flat Panel Display (FPD) lithography equipment exposes circuit patterns on glass substrates

INDUSTRIAL GROUP

Boosting productivity and moving further ahead to advance digital technology

Semiconductor lithography equipment serves to support society

AI, IoT, robotics, autonomous driving, space exploration, and other technologies that will power the future would not be possible without the semiconductor lithography equipment that exposes minute circuit patterns on semiconductor chips.

i-line stepper used to manufacture power devices, image sensors and more

Canon developed Japan's first semiconductor lithography equipment in 1970. Since then, Canon has introduced many innovative products that both advance semiconductor technology and serve the needs of semiconductor manufacturers to improve productivity.

Today, Canon's lithography equipment utilizing i-line (mercury) and KrF (krypton fluoride) as a light source produces a wide range of semiconductor devices including logic and memory chips, 5G devices, and power devices for automobiles. Canon is committed to offering a diverse range of semiconductor lithography equipment as well as high-quality service.

FPD lithography equipment produces beautiful displays

Canon is a leader in LCD and OLED display production equipment. Canon Flat Panel Display (FPD) lithography equipment, which exposes circuit patterns on large glass substrates, is used not only for the manufacture of smartphone displays, but also for large and high-resolution flat-panel displays for 4K and 8K televisions.

Contributing to the commercialization of OLED displays

Lauded for producing deep shades of black, OLED displays offer many more advantages, including energy savings and thin, lightweight designs. Today, OLED is a leading display technology for smartphones, tablets and televisions. Despite its many advantages, OLED technology was slow to catch on due to the difficulty of manufacturing the displays.

Canon Tokki was the first company to commercialize OLED mass production equipment. Since then, they have worked to expand OLED accessibility while pursuing new manufacturing methods and new materials at the vanguard of the industry.

OLED panel manufacturing equipment produced by Canon Tokki

Canon ANELVA's sputtering equipment deposits uniform nanoscale film under vacuum

United as one Group in pursuit of new innovations

Through stronger collaborations among Group companies that deal in industrial equipment, Canon is working to expand its business. In addition to Canon Tokki, the Group companies include Canon ANELVA, which produces sputtering equipment using vacuum film deposition technology to form thin metal film for hard disks and DRAMs; and Canon Machinery, which produces die bonders and labor-saving automation equipment. By integrating their respective technologies, these three companies are at the forefront of innovations that will support the next era of manufacturing.

Canon Machinery's die bonder used to attach semiconductor chips

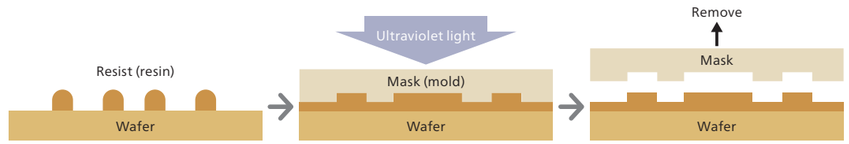
Industrial Group main products

Semiconductor lithography equipment / Flat panel display (FPD) lithography equipment / OLED Display Manufacturing Equipment / Vacuum thin-film deposition equipment / Die bonders / Handy terminals / Document scanners and more

Nanoimprint lithography enables low-cost manufacturing of cutting-edge chips

The miniaturization of semiconductor circuit width continues to progress. Today, attaining an industry-leading line width of under 20 nm requires a massive investment in equipment. Canon's nanoimprint lithography equipment holds great promise as a solution. Pressing nanometer-scale patterns onto the substrate, like a stamp to form minute circuits, Canon's technology holds the promise of huge cost reductions and energy savings.

Now that the equipment's primary performance criteria have been achieved, the next stage is mass production. Currently, Canon is working with semiconductor manufacturers to verify its operation for mass production. Meanwhile, the New Energy and Industrial Technology Development Organization (NEDO) has selected Canon's technology as part of a subsidized project for developing advanced logic manufacturing process applications.

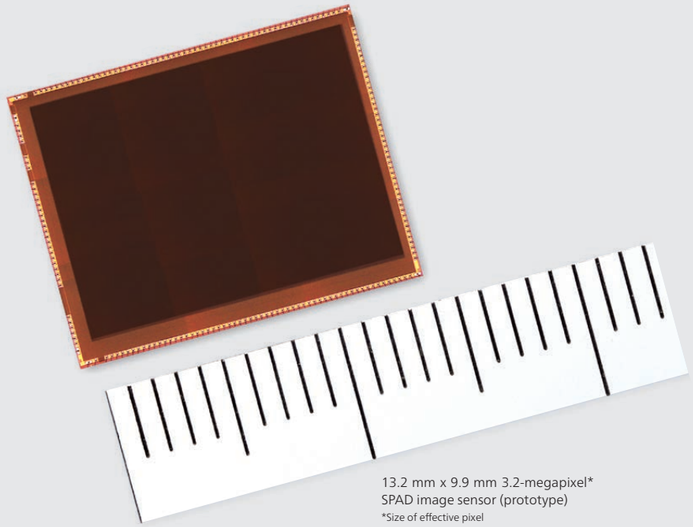


Inkjet technology is used to dispense droplets of liquid resin to the wafer surface in accordance with the circuit pattern

A mold, or mask, has circuit patterns that are pressed like a stamp onto the resin that has been applied to the wafer surface

Ultraviolet light is used to solidify the resin and form the circuit patterns, after which the mask is removed from the resin

Technological innovation blazing trails to the future



13.2 mm x 9.9 mm 3.2-megapixel*
SPAD image sensor (prototype)
*Size of effective pixel

Canon develops SPAD image sensor with world's highest[1] 3.2-megapixel count

SPAD image sensors measure each light particle (photon) that reaches the pixel. Canon's latest 3.2-megapixel SPAD sensor—with greater resolution than Full HD—is so effective at capturing color images in low-light conditions that video can be captured in environments darker than a starless night. What's more, the sensor's extremely high 100 picoseconds[2] processing speed makes it possible to capture fast-moving objects such as photons.

One potential use of this breakthrough technology is obtaining high-speed 3D spatial information for applications such as autonomous driving. Such technology holds the potential to realize the creation of products and services not yet imagined.

Scan for more information

1: As of December 14, 2021 (based on a Canon survey)
2: 1 picosecond = one-trillionth of a second

Life-size CG images can be displayed in a real-world environment

The HMD combines Canon's leading optical and imaging technologies

MR system integrates the real world and CG

Taking a step beyond virtual reality (VR), which is created exclusively with CG images, mixed reality (MR) systems smoothly integrate virtual CG images with the real world, creating a realistic experience.

Canon's MR system merges the real-world images captured by built-in cameras in the head-mounted display (HMD) and CG images created with systems such as 3D CAD, and uses spatial alignment technologies that track the user's movements to achieve an overwhelming sense of reality. Since the system can deliver visual experiences from any viewpoint, it is being used as a tool for product development and marketing.

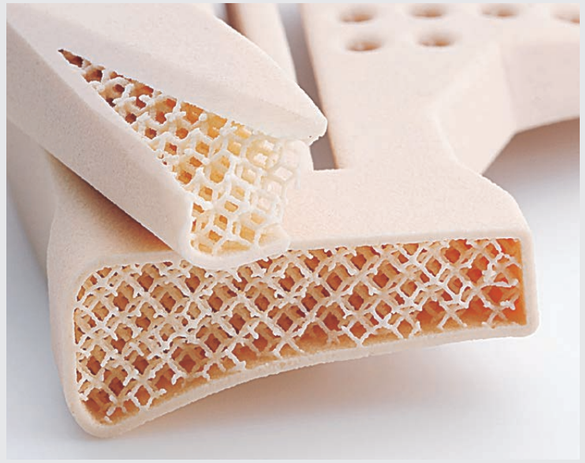
Scan for more information

Ceramic material for 3D printers

To produce ceramics, which provide outstanding insulation as well as heat and corrosion resistance, a firing process is required. Producing complex shapes, however, is difficult due to the need to precisely control the shrinkage that occurs during firing.

Leveraging technologies in material development, powder control and toner mixing cultivated over its long history, Canon has developed a 3D printer material that minimizes shrinkage. Now, the ability to freely create complex and high-precision ceramic parts is opening new possibilities in such fields as automotive, healthcare and aviation.

Scan for more information



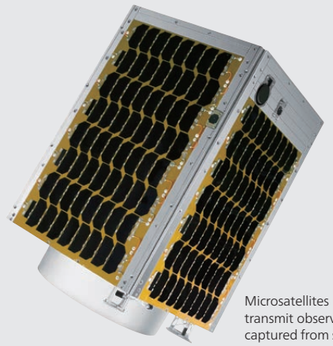
Complex lattice structure achieved with ceramics

Canon's space business challenge

The space business continues to stir high expectations for growth in areas ranging from rocket and satellite development, manufacturing and launching to communications, satellite imagery and location information services.

Building on its expertise and technologies in precision machines and optics, Canon Electronics has entered the space business. The company has already launched into outer space two microsatellites that it developed and manufactured in-house. Partnering with other firms, this innovative Canon Group company has established a rocket launch service, SPACE ONE, and construction is underway for Japan's first privately owned launch complex. The ultimate goal is to form a comprehensive space business, encompassing satellite development, production and launching.

Scan for more information



Microsatellites continuously transmit observation images captured from space

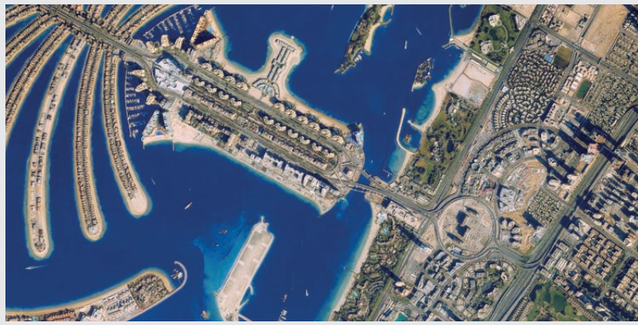


Image of a port near Dubai captured from approx. 500 km above the Earth

Volumetric video system

Volumetric video technology converts entire spaces into 3D digital data, creating video that can be viewed from any viewpoint. This system holds the potential for new experiences in sports broadcasts and promotional videos.

Scan for more information

Visual SLAM* technology

This video analysis technology serves as the "eyes" of automated guided vehicles (AGVs) and autonomous mobile robots (AMRs). It will also support the use of robots in places other than factories and warehouses.

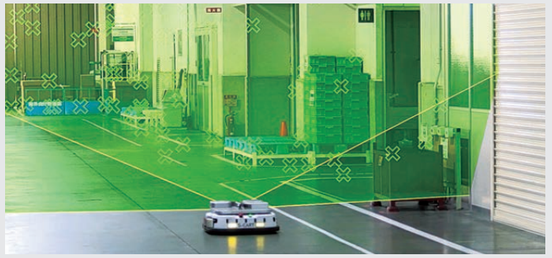
*Simultaneous Localization and Mapping

Scan for more information

Infrastructure inspection solutions

Canon is developing a solutions business for inspecting concrete structures such as bridges and tunnels using AI technology to detect cracks and other defects from images taken with digital cameras.

Scan for more information



Rapid antigen qualitative testing system

This system detects SARS-CoV-2 in 4-15 minutes and shows results with fewer false positives. The rapid results enable doctors to determine the course of treatment quickly and reduce the stress on medical staff that treat patients with COVID-19 symptoms.

Scan for more information

Facial recognition technology

Canon has developed facial recognition technology that utilizes AI and can detect and identify faces even from videos captured from top-down angles. Canon's proprietary machine learning and data development technologies enable highly accurate verification and recognition of subjects even if wearing masks or sunglasses.

Scan for more information

Committed to creating new value throughout the value chain

Throughout the value chain, which flows from R&D, material procurement and manufacturing to sales and marketing, Canon strives to create new value for society and the enrichment of human life.

Contributing to the realization of a sustainable society while also fulfilling our social responsibilities as a corporation and meeting the expectations of our stakeholders, Canon positions three materiality themes at the forefront of our work: "Creating New Value and Solving Social Issues," "Protecting and Conserving the Environment" and "Responding to People and Society as a Good Corporate Citizen." Even as we embrace our essential duties as a corporate citizen, including providing employment and paying taxes, we are expanding our corporate activities globally.

RESEARCH & DEVELOPMENT

With its industry-leading core-competency and fundamental value-creation technologies, which serve as the basis for the release of products, Canon has launched many new businesses. The company continues innovating by combining new technology, from such fields as IT, with leading technologies of companies that have recently joined the Canon Group in order to remain a step ahead of the competition.

Prioritizing technology is in Canon's Corporate DNA

Canon was founded on the dream of "building the world's best camera." Over the years, the emphasis on exceptional technology has been passed down through Canon's corporate DNA.

Core competency management

Core competency technologies are a key to the uniqueness of Canon products. Canon has vital fundamental technologies in optics, electronics, chemistry and other fields. Today, Canon is strengthening its businesses with value creation technologies that support commercialization in various fields. At the same time, Canon is establishing a system to create businesses to solve emerging social issues.

Open innovation

Canon promotes "open innovation" and alliances for such purposes as cultivating technological "seeds" that require time to bear fruit and using technology to devise solutions to social issues. Through collaborations involving Canon's diverse technologies and human resources, the company aims to realize next-generation technologies.

Research of vivid color ink material

Materials informatics utilizing AI for the development of key materials

The "Canon Material Bank" contains the vast data accumulated over Canon's history of developing materials technologies, including color materials and optical glass. Today, AI-driven materials informatics is being used to derive materials with the necessary functions to serve as key materials that give us a competitive advantage.

For details visit Canon's Technology website

Development of SPAD image sensors

Advanced image sensor development keeps Canon at the forefront of the times

Canon's development and manufacturing technologies make possible the production of CMOS sensors with high pixel counts and high sensitivity. Today, Canon is a world leader in the revolutionary technology for SPAD imaging sensors (p. 25) and remains committed to maintaining its position at the forefront of image sensor technology.

Establishment of a 5G lab for smart cities and smart factories

5G has three key features: eMBB (enhanced Mobile Broadband), URLLC (Ultra-Reliable and Low Latency Communications) and mMTC (massive Machine Type Communications). To develop 5G-compatible products with such features for smart cities/factories and next-generation imaging, Canon has opened a 5G lab where preliminary evaluation and verification of communication performance is conducted.

Local 5G lab

Researching the optimal manufacturing process for my iPS cells

Joint research with the CiRA Foundation

Canon has undertaken joint research with the CiRA Foundation established by Kyoto University to advance medical care using iPS cells, which offer high potential in the field of regenerative medicine. Research is being conducted on the process of manufacturing iPS cells from the patient's own cells by utilizing Canon's quality control and manufacturing technologies. Canon and CiRA_F are working together to reduce the risk of immune rejection, and realize low-cost production requiring shorter lead time.

*Canon started joint research with the Center for iPS Cell Research and Application, Kyoto University in 2019. The CiRA Foundation was established in 2020 and continues this research.

MANUFACTURING & QUALITY

For details visit Canon's Manufacturing website

For details visit Canon's Quality website

Canon strives to optimize manufacturing through automation and in-house production and the development of staff with outstanding skills, technologies and ingenuity. To ensure customer satisfaction, superior quality is pursued during each stage of the product lifecycle.

Establishment of mother factories

Canon's mother factories are the model for its factories worldwide. Tasked with integrating development, design, production engineering and manufacturing, mother factories are at the forefront of Canon's efforts to advance automation and in-house production, which spur the company's manufacturing evolution.

Chie-Tech

Canon develops production equipment that thoroughly minimizes waste, and produces tools and equipment in-house to replace or supersede expensive systems from outside vendors. Such in-house production is symbolic of Canon's manufacturing strength.

No claims, no trouble

Since 1964 when this policy was established, Canon's mission to guarantee the high quality of each product has remained unchanged. Along with prioritizing both the safety of products and services and customer satisfaction, Canon has established a quality management system to advance quality further.

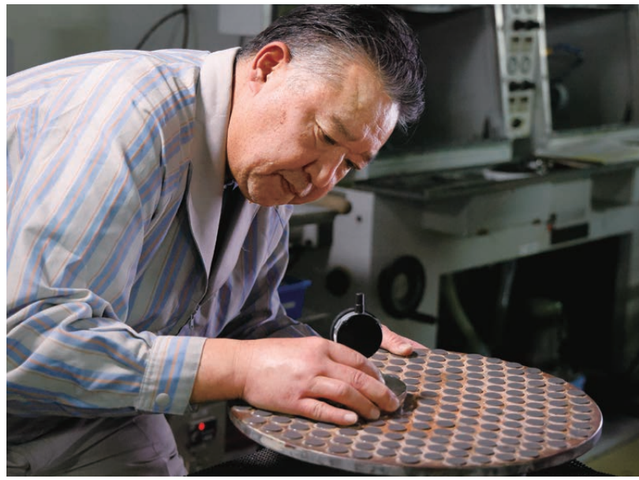
Globally optimized production for prompt and efficient delivery of products and services worldwide

Canon has established a globally optimized and flexible production system based on a comprehensive view of the ever-changing social and economic conditions of countries and regions around the world. Ideal sites are chosen based on such factors as infrastructure, cost, taxes, logistics and labor to enable prompt and accurate delivery even during natural disasters and other unexpected events.

Canon Hi-Tech (Thailand) is responsible for manufacturing inkjet printers

Meister and Master Craftsmen systems for honing skills and passing down expertise

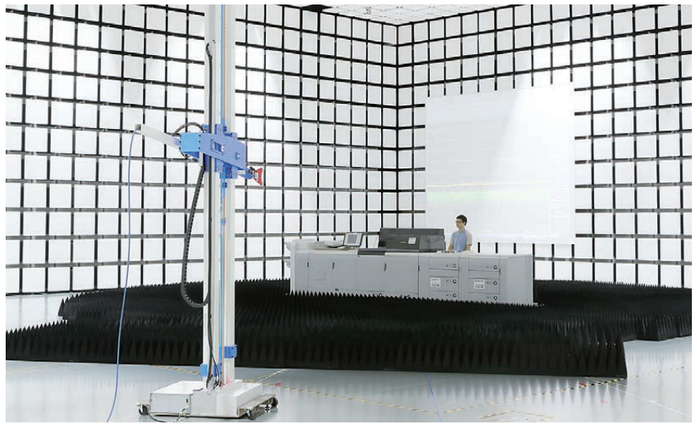
Canon's most skilled technicians are honored with the title of Master Craftsman, while those who help enhance Canon production through their skills and knowledge of assembly and component processing earn the title of Meister. Skilled workers pass their valuable expertise to the next generation. Their know-how spurs the evolution of Canon manufacturing, including automation.



Master Craftsman of lens polishing

Strict quality assurance tests guarantee Canon Quality

"Canon Quality" is a promise to not only maintain, but also improve each product for greater safety, customer satisfaction and peace of mind. In-house tests at Canon's certified testing facilities are a key piece in ensuring compliance with public standards and regulations.



Canon's ISO/IEC 17025 certified anechoic chamber is qualified for third-party testing

Further accelerating in-house production and full automation

Canon's dedication to manufacturing is one of its great strengths. Key devices and components, as well as manufacturing and testing equipment are produced in-house. With this equipment, Canon prioritizes automated assembly from the stage of product design to inspection and packaging. Under this strategy, Canon has already achieved a high degree of manufacturing automation.

Automated production line for interchangeable lenses

MARKETING

AMERICAS

Canon U.S.A. oversees marketing operations in North, Central and South America. To meet the growing demand for printing in hybrid work environments during the COVID-19 pandemic, Canon U.S.A. restructured its organization with a focus on strengthening sales. Sales activities for the EOS R System and Cinema EOS System were boosted in response to the expansion of video streaming. For the commercial printing business, a high-quality service system was established that covers all 50 states and has received high praise from customers. At CES 2022, one of the world's largest digital tech events, Canon U.S.A. promoted technological innovations centered on hybrid work and virtual reality with the aim of creating new businesses.

Virtual reality proposal at CES 2022 involving new expression using VR lenses

For details, visit Canon U.S.A.'s website

EMEA

Canon Europe oversees business in the EMEA region—Europe, the Middle East and Africa—and operates in approximately 120 countries and regions. They continue to support production print customers and partners through a hybrid platform, including virtual and on site, to help them shape a positive business future, with practical advice, demonstrations and the latest market insights. Canon Europe was the Official Printing and Imaging Provider for Expo 2020 Dubai and the Official Imaging Supporter for the Birmingham 2022 Commonwealth Games. Through both opportunities, Canon Europe demonstrated its full breadth of imaging and printing technologies, products and solutions.

Launch event for a new digital press used in commercial printing

For details, visit Canon Europe's website

Canon's regional marketing companies bring Canon products and services to every corner of the world. While strengthening connections with customers in the digital marketing age, each marketing company strives to expand B2B enterprises and further Canon's grand strategic transformation.

Livestreaming solution introduced at the camera exhibition "China P&E" in response to the rising demand for streaming services such as live commerce

For details, visit Canon China's website

For details, visit Canon Asia Marketing's website

ASIA & OCEANIA

Canon China and Canon Marketing Asia group oversee operations in China, India, South Asia and Southeast Asia. In China, which continues to display substantial growth, the Group is striving to strengthen its business by further adapting to the market's unique characteristics and business practices. Canon Korea integrated its office equipment and camera sales businesses in order to cultivate a brand image that encompasses both the B2B and B2C spheres. Through organizational restructuring and the optimization of sales channels in each region, Canon China and Canon Marketing Asia are working to enhance the Canon brand and boost sales.

With world-class operational quality, Nishi-Tokyo Data Center protects customers' IT equipment in a safe and secure environment

For details, visit Canon Marketing Japan Group's website

JAPAN

The Canon Marketing Japan Group (CMJ) oversees marketing activities in Japan. The Group's 2025 vision is to become "a professional corporate group that solves the issues of society and customers through ICT and the strength of human resources." Leveraging Canon's imaging technology cultivated over its long history, along with leading-edge proprietary IT, and a solid and diverse customer base, CMJ offers digital document services and video solutions, IT support, security services and more. Through the delivery of optimum solutions to customers, the Group contributes to solving social issues.

SUSTAINABILITY

For details visit Canon's Sustainability website

Canon proactively undertakes activities to promote sustainability based on our corporate philosophy of *kyosei*.

In 2021, amid the growing interest in SDGs, we established our Sustainability Headquarters with the ambition of making important contributions to realizing a sustainable society. Today, the entire Canon Group is intensifying its efforts to further our sustainability initiatives.

Approach to sustainability

Canon will create new value through the power of technology and innovation, providing world-first technologies and world-leading products and services while also contributing to solutions for the problems our society faces. By providing greater value while using fewer resources throughout all product lifecycles, we aim to enable affluent lifestyles while protecting the environment.

Through our corporate activities, Canon proactively works toward realizing a sustainable society.

Net-zero CO_2 emissions by 2050

With the target of achieving net-zero CO_2 emissions by 2050, Canon works to reduce CO_2 emissions for the whole product lifecycle from development and design to production, logistics, usage and recycling. While strengthening our efforts to save energy at each stage, we are also working to expand the use of renewable energy while taking into consideration regional renewable energy uptake status and economic efficiency.

Solar panels at Canon Production Printing Netherlands

Educational activities that nurture creativity and open doors to a brighter future for young people

As a leader in the field of imaging, Canon leads social programs within the field to hone the emotional and technical intelligence of young people. With the goal of creating a more vibrant future society, Canon hosts photography and videography workshops around the world. In Africa, for example, we support skills training programs for young people who aspire to work in the fields of photography and printing.

A filmmaking workshop for women held in Nairobi, Kenya

High-resolution facsimile of "Waves at Matsushima" by Tawaraya Sotatsu displayed at Shounji Temple, Osaka (home of the original artwork, which is owned by Freer Gallery, U.S.A.*)

The Tsuzuri Project passes on precious Japanese cultural assets to future generations

The Tsuzuri Project is a joint effort between Canon and Kyoto Culture Association (NPO).

Bringing Canon's leading-edge digital technologies together with the traditional craftsmanship of Kyoto artisans enables the Project to produce high-resolution facsimiles of precious Japanese cultural assets whose originals are held in Japan or overseas. These facsimiles are displayed in place of the originals, which are preserved in environments that prevent deterioration, for public viewing or educational purposes.

*Facsimiles of works in the collection of the Freer Gallery of Art, Smithsonian Institution, Washington, D.C.: Gift of Charles Lang Freer, F1906.231, F1906.232.

Canon Eco Technology Park is symbolic of the Canon Group's environmental activities

Canon Eco Technology Park conducts resource recycling activities such as automated recycling of toner and ink cartridges and the "remanufacturing" of used office multifunction devices to achieve equivalent quality to new devices. The park also offers tours, an experience-based showroom and online environmental education programs for children.

Canon Eco Technology Park

CANON DASHBOARD

As of December 31, 2021

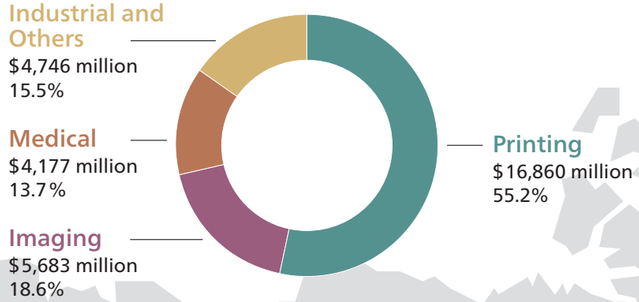
Net sales (2021)

$30,551 million

Net income (2021)

$1,867 million

Sales ratio by business unit[2] (2021)

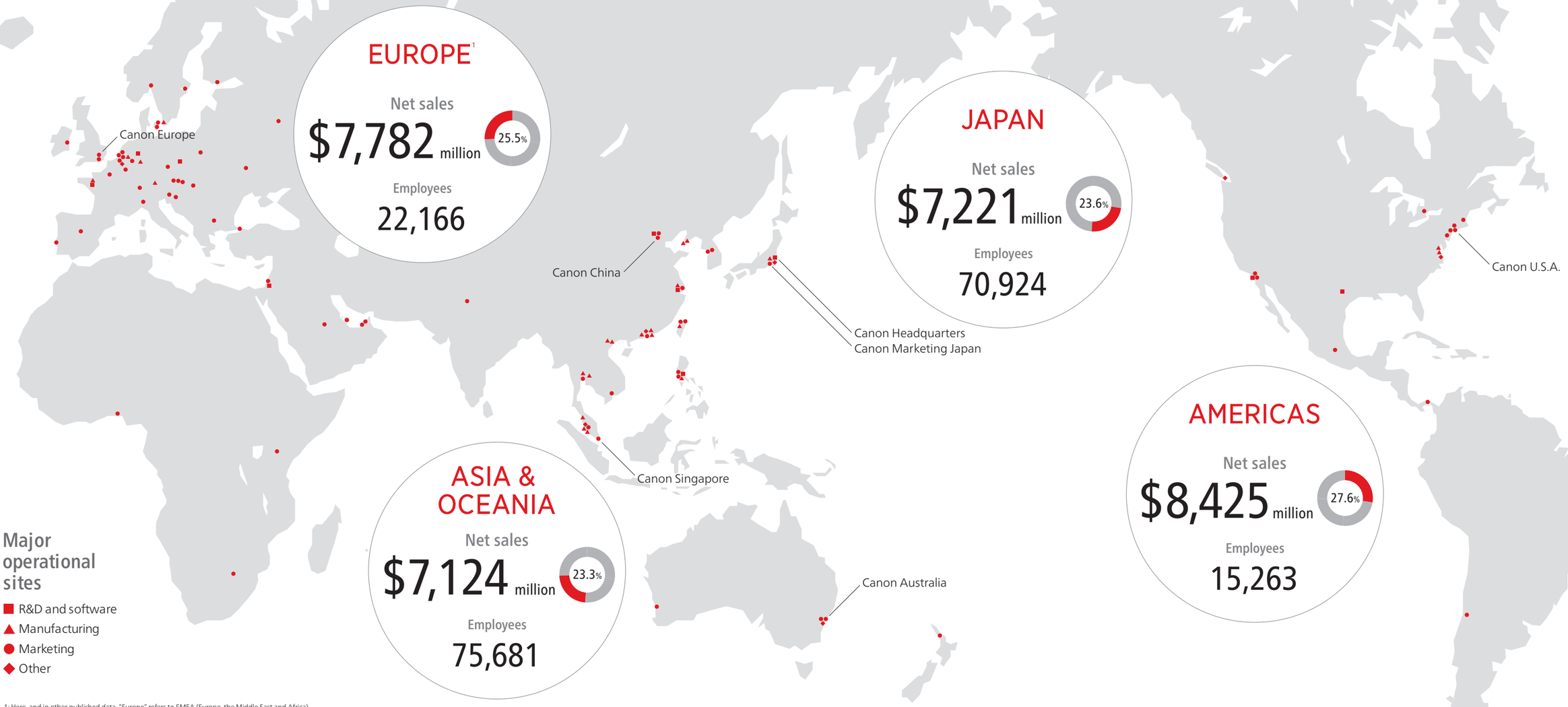


Employees

184,034

Consolidated subsidiaries

329



EUROPE[1]

Net sales
$7,782 million
25.5%

Employees
22,166

JAPAN

Net sales
$7,221 million
23.6%

Employees
70,924

ASIA & OCEANIA

Net sales
$7,124 million
23.3%

Employees
75,681

AMERICAS

Net sales
$8,425 million
27.6%

Employees
15,263

Major operational sites

- ■ R&D and software
- ▲ Manufacturing
- ● Marketing
- ◆ Other

1: Here, and in other published data, "Europe" refers to EMEA (Europe, the Middle East and Africa).
2: Sales ratios do not total 100% due to sales between segments of 3.0%.
• U.S. dollar amounts are translated from yen at the rate of JPY 115 = U.S.$1, the approximate exchange rate on the Tokyo Foreign Exchange Market as of December 31, 2021, solely for the convenience of the reader.

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 PUB.AEP046 0922