Intellectual Property (IP) Strategy

IP Strategy: Basic Policy

Canon's growth as an R&D-led company is grounded in its development of new markets and customer segments by using original technology to create high-quality products and services that are differentiated and attractive. Canon's IP Division formulates and pursues IP strategies that look ahead to the next 10–20 years, with an emphasis on supporting development of new businesses and anticipating emerging trends.

While we do not change our basic approach to IP activities, we also modify our tactics in order to keep up with the changing times.

Core Strategy
- Patents relating to core competence technologies are used to secure competitive advantage, and are therefore not licensed to protect business in competitive fields.
- Collaborative field patents relating to general-purpose technologies such as communications and GUIs, are used for cross-licensing activities to realize greater R&D and operational freedom, leading to the provision of attractive products and services.
- While always respecting the IP rights of other companies, we are committed to responding resolutely to any IP rights infringements against Canon.
- Inventions that cannot be easily verified or derived by other companies are retained and protected as confidential expertise to secure a competitive advantage without being overtaken by other companies.

IP Portfolio Aimed at Creating New Value

By building a strong patent portfolio, Canon's IP activities aim to strike a good balance between securing competitive advantage and retaining business freedom.

One of Canon's top priorities is acquiring patents that relate to core technologies for Group businesses. We also seek to acquire IP in technical fields such as AI, IoT and standardized technologies in order to be prepared for litigation and negotiation with IT firms that are competitors in the IP arena, while not in the realm of commercial business. In addition, we are actively trying to acquire patents for technologies that could contribute to solving social issues or achieving SDGs. In these various ways, we are working to maintain the strength of our IP portfolio by acquiring patents that will support future business development in line with projected external conditions, while also keeping a flexible stance on IP asset swaps.
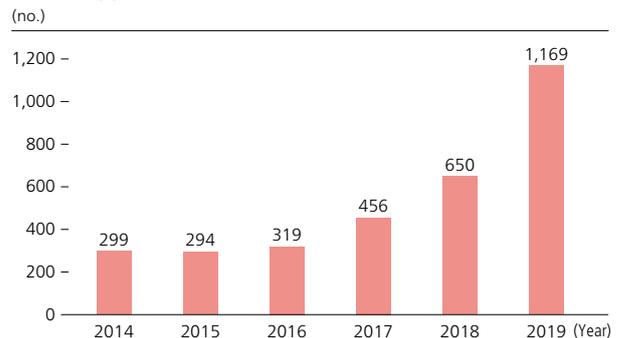
As of November 30, 2021, Canon holds approximately 87,000 patents and utility models worldwide. We have focused on filing patent applications in the United States for its large market scale and high prevalence of IP litigation. Canon has ranked in the top five for U.S. patent registrations for the past 36 years.

Top Five Companies Acquiring U.S. Patents in 2021

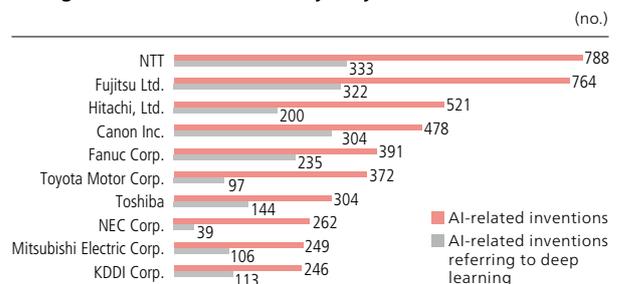| Rank	Company	Number of patents
1	International Business Machines	8,682
2	Samsung Electronics	6,366
3	Canon	3,021
4	TSMC	2,798
5	Huawei Technologies	2,770

* Figures based on data released on January 5, 2022 by IFI CLAIMS Patent Services.

Worldwide Canon Machine Learning & AI-related Patent Applications
(no.)

* Source: LexisNexis PatentSight (based on February 17, 2022 data) Since the above figures are based on publicly released data, in consideration of the period until patent applications are made public, only figures up to 2019 are included.

Japanese Patent Filings for AI-related Inventions (Filings Since 2014 Published by May 2021)
(no.)

* Based on August 2021 report on patent filing status of AI-related inventions published by Japan Patent Office

IP Activities as an Opinion Leader

Aiming to contribute to industrial development in Japan and worldwide, Canon actively seeks to be a leader in the IP field. In 2014, Canon with other companies helped to establish the License on Transfer (LOT) Network as a mechanism to protect member firms from any unwarranted litigation brought by patent assertion entities, whose primary business is to attempt to generate profits using the threat of patent-related lawsuits. The number of LOT Network members is over 1,700 as of November 2021. Canon also launched the Open COVID-19 Declaration in 2020 to support action to control the COVID-19 pandemic as quickly as possible. Since 2019, Canon has been a partner of WIPO GREEN, an international platform operated by the

World Intellectual Property Organization (WIPO) that is promoting the utilization of green technologies. This forms part of our collaborative efforts with WIPO to propagate environmental technologies. Furthermore, we actively contribute to efforts to improve IP systems based on discussions with the senior management of national patent offices about the IP environment and related regulatory policies.

IP Activities in Phase VI of Excellent Global Corporation Plan

Our aim for Phase VI of the Excellent Global Corporation plan is to improve the competitiveness of all Canon Group operations across each of its four business areas of printing, imaging, medical and industrial through IP activities. At the same time, we are directing our efforts at supporting future business creation in areas such as next-generation imaging, which includes volumetric video and extended reality (XR, a term encompassing VR, AR and MR), next-generation healthcare, and smart mobility. To help underpin the development and sustained growth of these businesses, Canon's IP Division is focusing efforts on creating and commercializing IP assets relating to core competence technologies (such as optics, image processing and analysis); technologies that will be essential for cyber/physical systems with embedded AI and IoT; and technologies needed to help solve social issues and achieve SDGs.

Industry Group-specific IP Strategies

Printing

- **Print engines and the Digital Transformation (DX)**
  We are focusing on creating IP assets to support development of better printing systems and solutions for the digital-era workplace (by combining print engines, materials and key components with cloud and network technologies) so as to add new value to the user experience (UX).
- **Commercial/industrial printing**
  Based on collaboration with Canon Production Printing (CPP) and other Group companies, we are focusing on creating IP assets to support development of stronger, more advanced printing technologies for commercial or industrial applications, including label and package printing.

Medical

- **Adding frontline medical value**
  Under the management slogan "Made for Life", we aim to create a stream of new IP assets in areas such as AI-based image reconstruction technology, diagnostic support solutions, touch screen controls to revolutionize the user experience, and next generation detection devices. Our IP activities support Canon's operations to help realize high-quality healthcare with greater frontline efficiency and reduced costs, and to help provide personalized medicine.
- **Business portfolio expansion**
  To satisfy medical new needs we are pursuing synergies with other technologies developed within Canon Group and promoting open innovation programs with research institutions in various countries and regions. We are focusing on creating IP assets to expand diagnostic imaging system business and to enter in new fields such as vitro diagnostic systems, reagents and regenerative medicine.

Imaging

- **From cameras to solutions**
  IP activities support upgrading of a wide range of products and services, from hardware to solutions, by integrating core imaging technologies in areas such as optics, devices and image processing with network technologies. We generate IPs by extending existing technologies, such as mirrorless cameras, interchangeable lenses, image sensors and displays, and create new IPs in new technology areas such as concept cameras, XR applications, and volumetric video.
- **Network cameras and smart mobility**
  We are developing more advanced capabilities in video management and analytics, and security solutions businesses as well as reinforcing our patent portfolio in collaboration with Canon Group member companies such as Axis, Milestone, BriefCam and Arcules. In addition we are focusing on creating IP assets to support expansion of network camera business into the social infrastructure domain as well as entry into the smart mobility field.

Industrial

- **Semiconductor/FPD manufacturing equipment**
  We use an "open and close" strategy with patents and know-how in areas such as semiconductor lithography equipment, die bonders, OLED manufacturing equipment, and sputtering equipment. A core focus is on IoT applications for industrial equipment to enable network-based management of systems.
- **Reforming the semiconductor industry**
  Nano-imprint lithography has the potential to revolutionize the semiconductor industry. Based on collaboration with industry, academia and the public sector and Canon Group companies, we are seeking to build a strong patent portfolio in technical fields in materials, elements, and equipment, as well as advanced semiconductor manufacturing processes.

Towards a Sustainable Society Using Advanced Technologies

- **Technologies at the cutting edge**
  We are conducting research into areas such as materials and device technology, including ceramics for 3D printing applications, lead-free piezoelectric materials, and single photon avalanche detector (SPAD) sensors; digital element technologies, including mixed reality and visual simultaneous location and mapping (SLAM); and aerospace technologies, including satellites, the Thirty Meter Telescope (TMT) and diffractive elements for use in IR immersion spectrometry. The focus is to build an IP asset portfolio including patents for world-leading, state-of-the-art core technologies.

- **Standard technologies, data/content businesses**
  We are working to upgrade our IP assets relating to digital platform technologies in such areas as video encoding (HEVC, VVC), wireless communications (Beyond 5G, Wi-Fi7), and wireless power transfer. At the same time, we are focusing on new businesses in video production and data/content where the use of video data could add new value, and on expanding the patent portfolio for these applications.

- **Addressing social issues**
  Canon is contributing to the realization of a sustainable society by creating inventions and business that can solve social issues while using an open innovation approach to achieve SDGs from viewpoints of energy and resource conservation, decarbonization, and health and safety.

  Further information on intellectual property activities can be found here:
  https://global.canon/en/intellectual-property/