

CASE

2 Intellectual Property (IP) Activities: Promoting Continuous Growth Together with Business

Canon's IP Activities

Knowing IP assets form the foundation of business development, Canon formulates and pursues IP strategies with a long-term perspective of 10-20 years into the future.

Canon has inherited an established corporate DNA that emphasizes creation of innovative technology as the means of generating new social value. We are creating original IP assets every day to enhance the value of products and services through continual evolution of our basic and core proprietary technologies via relentless R&D activities.

Support Business to Create New Value

Patent Filing and Management of IP

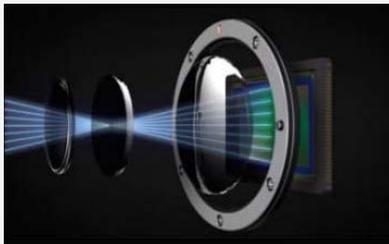
Working closely with R&D, production and marketing divisions, our IP Division focuses on unearthing and pursuing innovative discoveries so they can be protected by strong patents. For technologies in areas where it would take others a long time to catch up with us, we aim to maintain the inventions in the form of in-house trade secrets rather than seeking patents for them.

These IP activities, which effectively utilize our wealth of highly experienced personnel and technical expertise, help support Canon's competitive advantage in business.

Examples of Technology-based Differentiation

Canon seeks to differentiate its products from those of rivals by constructing a robust IP portfolio that protects its proprietary technology.

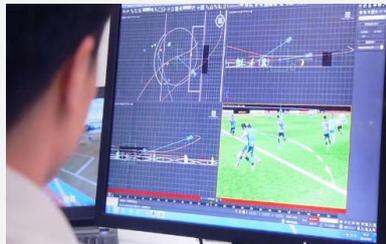
**Example 1:
EOS R System
New camera system that enhances photographic capabilities**



Building on the imaging capabilities of the newly developed RF lenses, the EOS R system delivers sharper detail in the subject image to reproduce color gradations not visible to the naked eye. It also enables dramatically quicker camera-lens communication for continuous shooting without compromising image quality, helping users capture high-quality images of subjects in motion.

The three features at the core of the system are short back focus, a large internal mount diameter and new mount data-transmission system. These technologies are protected by a strong portfolio of patents.

**Example 2:
Free Viewpoint Video System
Technology that realizes radically new video experience**



Canon demonstrated its Free Viewpoint Video System during Rugby World Cup 2019 (TM), to help enhance the appeal of the sport. The system allows viewers to watch the action from any viewpoint or angle.

A comprehensive patent filing program supports the innovative technologies involved in this system, from camera deployment and image capture to communications, image processing and the user interface.

**Example 3:
Optical Coherence Tomography
Angiography (OCTA)
Image-processing technology that creates a 3D picture of retinal blood vessels**



Canon's Optical Coherence Tomography (OCT) scanning technology enables rapid capture of high-definition images of retinal blood vessels at the base of the eye, reducing the burden on the patient and the medical professional. One technology making this possible is a proprietary image-processing technology developed using deep learning known as "Intelligent Denoise" for reducing noise in high-definition images.

Based on patent applications relating not only to the inventions incorporated in products, but also to a broader range of medical devices using AI technology, Canon aims to construct an IP portfolio to protect future medical devices that will contribute to society.

Present

Future

For New Businesses

IP Licensing Activities

To create new businesses, Canon tries to be ahead of the curve in IP licensing activities anticipating future trends. For example, anticipating the development of AI/IoT technologies, we started years ago to negotiate IP licenses with firms from other sectors. By securing cross licenses from companies with competitive technologies at an early stage using our strong patent portfolio, we aim to provide high-value-added products and services based on the integration of external and in-house technologies.

Ownership of multiple strong patents is an essential part of protecting the technology behind Canon's core competences while also facilitating alliances with the owners of competitive technologies. We maintain the strength of Canon's IP portfolio by selecting patents through constant evaluation of their values. Canon was the third-ranked company in the US by the number of registered patents in 2019 (→P26), and has been the leading Japanese company by this measure for 15 years running.

Initiatives for Development of Businesses

Standardization Promotion Activities

Canon takes part in activities to promote the adoption of international standards in areas such as streaming video, video coding, and communication technology and has contributed to the widespread adoption of digital video systems.

In recent years, Canon acquired standard-essential patents and other related IP in communications technologies and coding technologies that have become societal infrastructure through adoption of IoT, through which Canon is also actively establishing cross-license relationships with companies in other industries.

These efforts help secure freedom for technology development.

Activities as Leader in the IP Field

License on Transfer (LOT) Network

Lawsuits from so-called "patent trolls" that use IP purely for litigious purposes rather than innovation have posed challenges for many firms. In 2014, Canon, Google and four other companies took the initiative to found the License on Transfer (LOT) Network, which aims to restrict the threat of patent troll litigation as part of risk management.

LOT Network members agree to grant fellow member firms a free license to use any patent if the ownership of that patent is transferred to a non-member entity. This protects companies from the risks associated with frivolous patent lawsuits, enabling member firms to focus on developing products and services. We believe this contributes to promoting innovation. The number of LOT Network members has grown over the years to more than 600. Canon is continuing to engage in activities to promote innovation in partnership with other members.

Contribution to the Environment Through IP

WIPO GREEN

Canon became a partner in the "WIPO GREEN" program, an international framework operated by the World Intellectual Property Organization (WIPO) for the transfer of green technologies. By providing green technologies to the companies and organizations that need them, Canon hopes to contribute to environmental solutions through IP (→P109).

Greater Value for Customers

"Canon Design" Brand

Canon's IP activities also seek to support the development of "Canon Design" as a valuable intellectual property.

Canon supplies products and services that are usage-optimized, based on designs that aim to combine ideal appearance with performance and ease of use. This approach to design helps add value for customers.

The value of the Canon brand is controlled and promoted by all the Group companies through established brand management rules.



Canon Design helps to boost brand value