



KONICA MINOLTA

Intellectual Property Report 2018



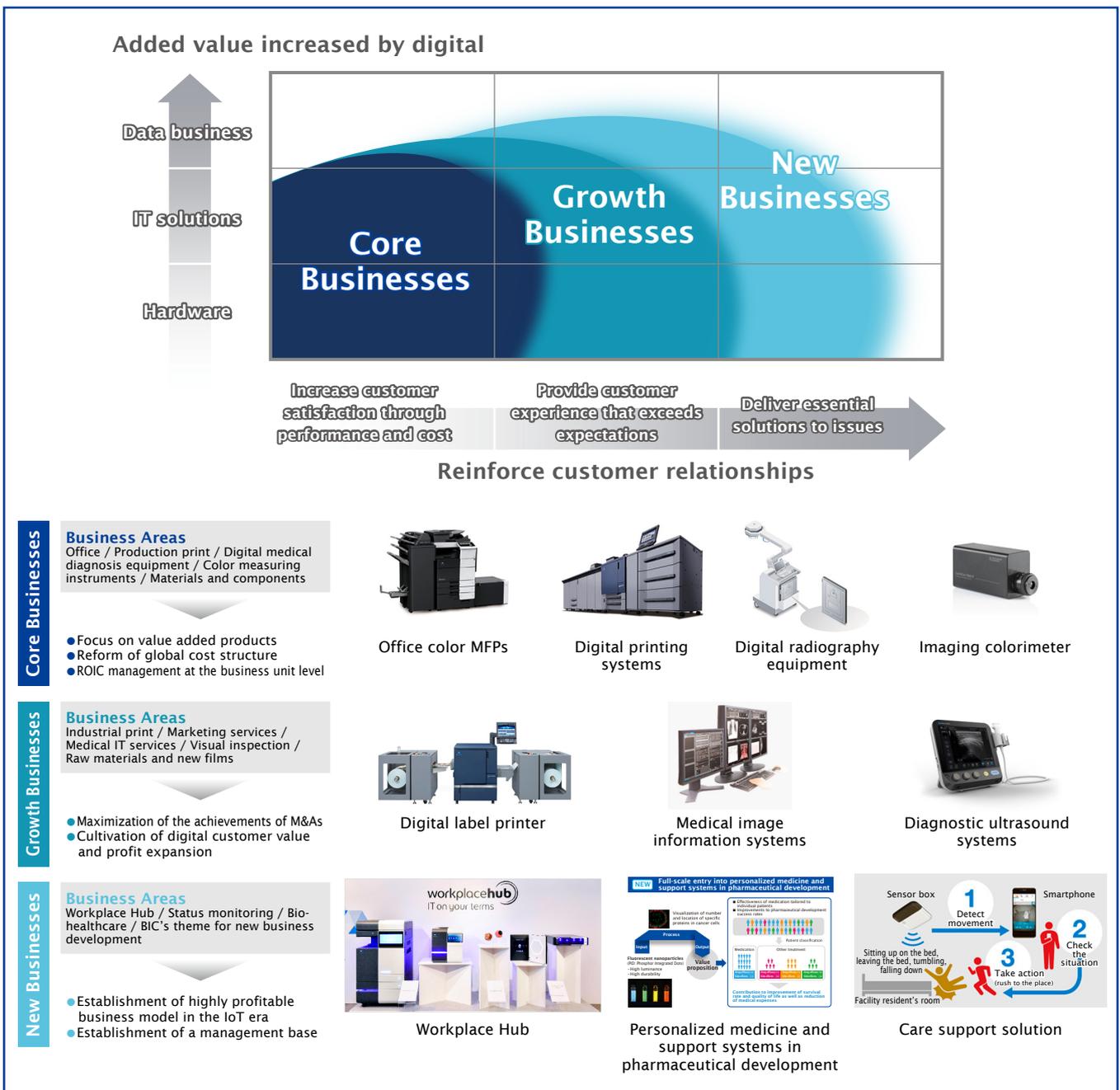
Giving Shape to Ideas

Business Strategy and Technology

Under the Konica Minolta philosophy “The Creation of New Value,” Konica Minolta, Inc. (“Konica Minolta”) is committed to offering new values to customers through its products, services and solutions by evolving the core technologies it has developed that are rooted in its photographic film and camera technologies.

In the previous Medium Term Business Plan “TRANSFORM 2016”^{*1}, we pushed forward in transforming our business model to one that provides higher added-value solutions with a view to commoditizing products. In the new Medium Term Business Plan “SHINKA 2019”^{*2}, our business model will evolve further to a platform business powered by data, where existing core technologies are combined with technologies and knowhow we have actively acquired and strengthened through M&As.

Through these activities, we will actively work as a digital company with insight into implicit challenges, to address social issues and strive to be a high-profit enterprise that continues to create new value for the evolution of business and human societies.



*1, *2 For information on previous Medium Term Business Plan “TRANSFORM 2016” and new Medium Term Business Plan “SHINKA 2019,” visit our website:
https://www.konicaminolta.jp/about/investors/management/midterm_plan_presentations/index.html

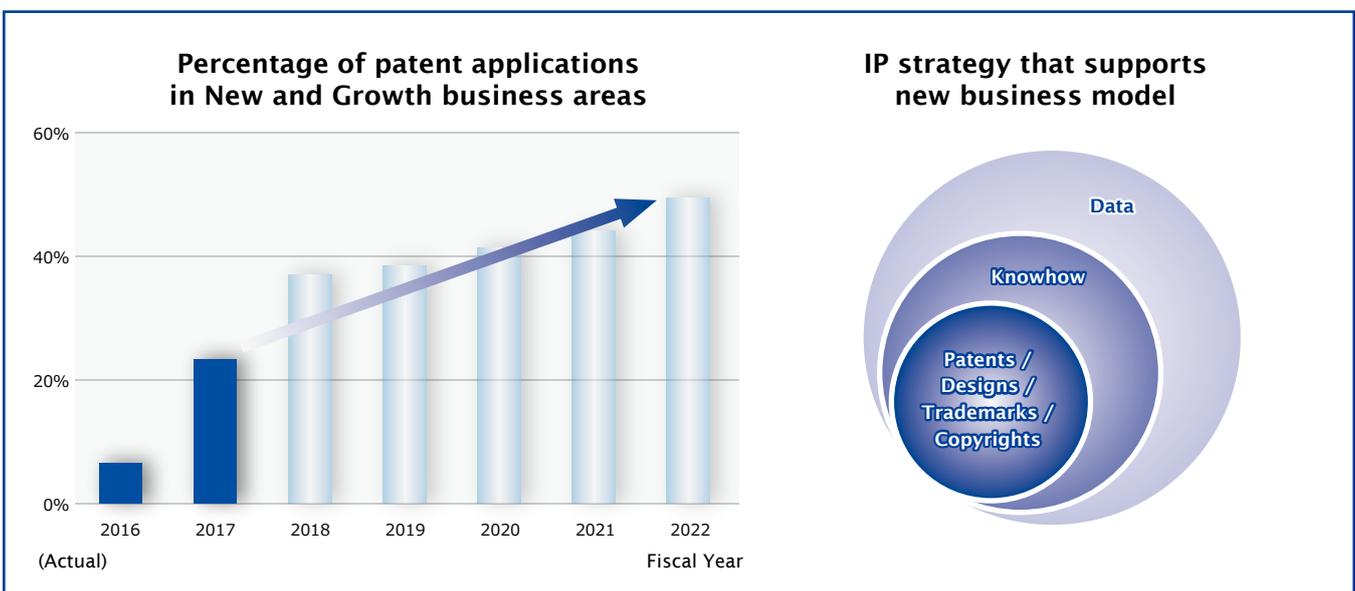
Direction of Intellectual Property Activities

Intellectual property is one of the important management resources, and the existence of intellectual property strategy that is closely linked to business strategy and technology strategy is an indispensable element of management strategy. The new “Intellectual Property Strategy 2017-2022” has been put together to support, from the intellectual property aspect, Konica Minolta’s New, Growth and Core businesses including the data-based platform business that “SHINKA 2019” is aiming for.

“Intellectual Property Strategy 2017-2022” is an evolution of the “Productivity Enhancement” initiatives relating to the formation of patent assets which have been pursued since the integration of Konica Corporation and Minolta Co., Ltd. in 2003. It also supports the platform business through a comprehensive strategy that incorporates intellectual property other than patents for knowhow, data etc. The Intellectual Property Strategy is developed in accordance with the specific business environment of New, Growth and Core businesses, and is promoted in coordination with each business.

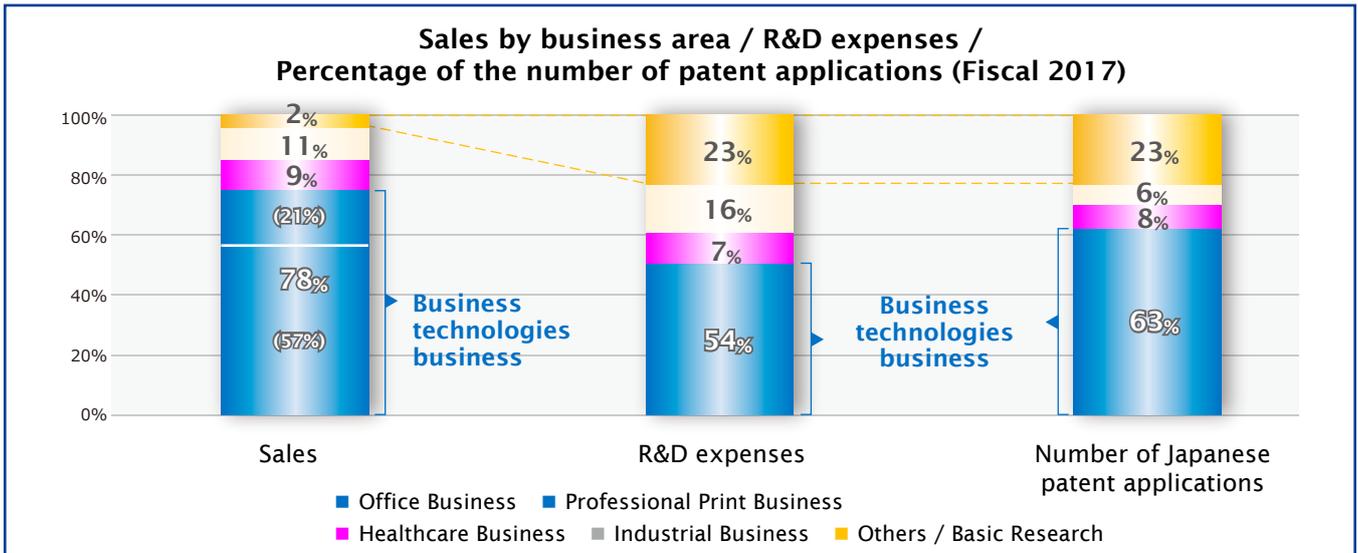
	Key Points	Breakdown
New and Growth businesses	IP that supports a business model that has evolved	<ul style="list-style-type: none"> Building a patent network to secure “dominant patents” and lock in “differentiating technologies” Incorporating and using knowhow and data in intellectual property strategy
Core Businesses	IP that supports profitability	<ul style="list-style-type: none"> Enhancement of property value through optimization of patent portfolio Improvement of productivity (pursuit of effectiveness and efficiency)
Across all businesses	Strengthening of IP promotion structure	<ul style="list-style-type: none"> Strengthen capability in patent information analysis Develop human resources that would lead to next generation intellectual property structure Improve and strengthen global IP structure Improve brand value through designs and trademarks

In the New and Growth businesses, patent applications will be actively filed to secure dominant patents and lock in differentiating technologies. Further, in addition to strategic use of patents and knowhow, from the legal aspect, contracts provide support in the use and protection of data, which is the key element in platform business.



Research & Development and Intellectual Property That Support the Businesses

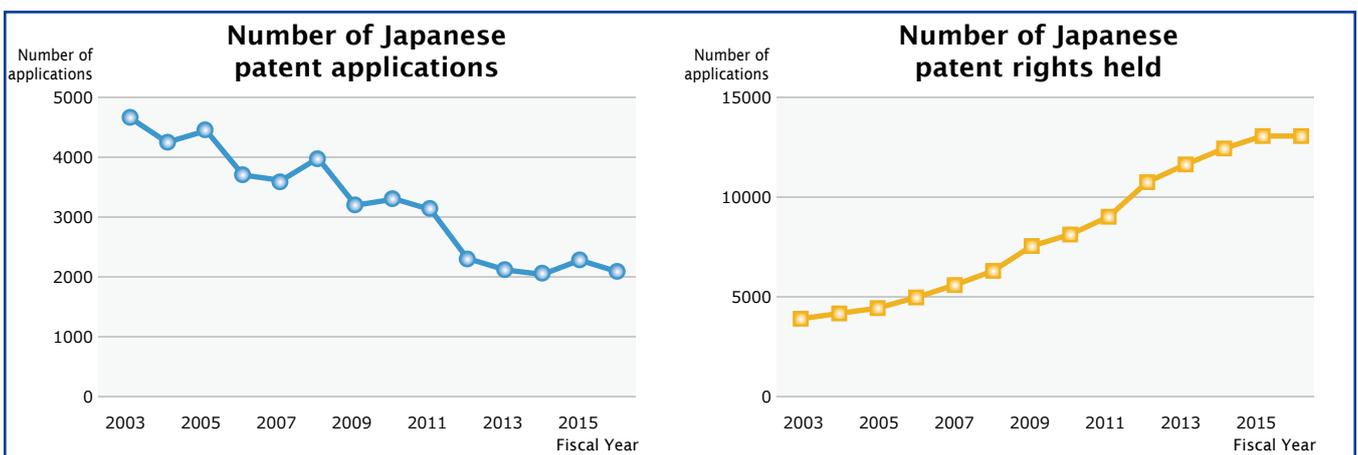
Konica Minolta is developing its business in the four segments of "Office Business" which handles MFPs (Multi-functional peripherals), "Professional Print Business" which handles digital color printing systems, "Healthcare Business" which handles digital X-ray diagnostic imaging filing systems, and "Industrial Business" which handles TAC films that are used in LCD displays, measuring instruments, etc. New and Growth business areas are for the most part included in "Others and Basic Research." Although sales in this segment accounted for a modest 2% of the total in fiscal 2017, the segment's R&D expenses accounted for 23% of the total, reflecting active investment in Research and Development activities in conjunction with which patent applications were actively promoted. Thus, along with the high percentage of R&D expenses, the number of patent applications filed for this segment during fiscal 2017 also showed a high percentage of the total.



Efforts to Strengthen IP capabilities

[Productivity Improvement]

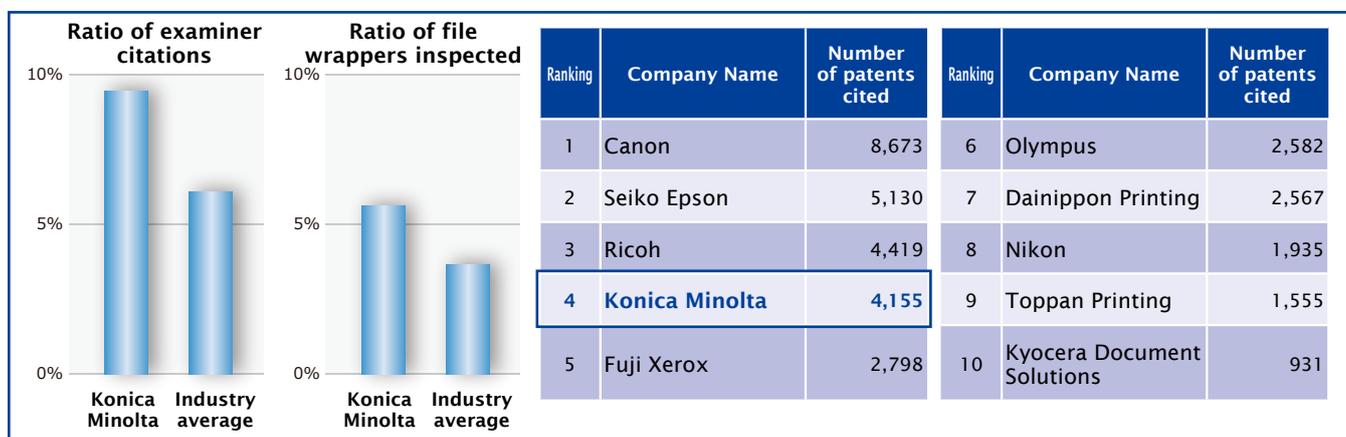
Since the integration of Konica Corporation and Minolta Co., Ltd. in 2003, Konica Minolta has been maintaining its efforts to acquire high quality patents with high investment efficiency by being selective in patent applications with focus on outstanding inventions, while paying attention to raising the percentages both of examination requests and decisions to grant a patent. As a result, despite decrease in the number of patent applications, the number of patent rights held is increasing year after year.



[Enhancement of Patent Value]

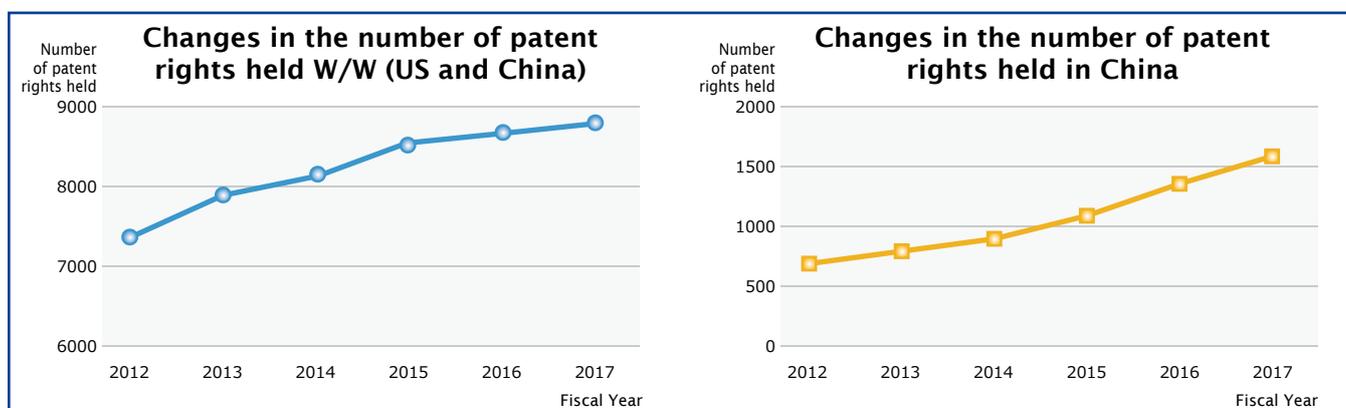
Indicators showing the value of Konica Minolta’s patent applications are rising.

If, during the course of another party’s patent application examination, Konica Minolta’s patent application is cited as prior art, or if the examination process of Konica Minolta’s patent application is inspected by another party, such a patent application filed by Konica Minolta can be deemed as having an outstanding value as prior art or one that other companies show interest. To measure these, indicators have been provided in the form of ratio of examiner citations^{*3} and ratio of file wrappers inspected^{*4}. These indexes show that Konica Minolta’s patent applications score higher than the industry average. Further, in the “2017 Ranking of Companies’ Capability to Prevent Other Companies from Obtaining Patent Rights”^{*5}, Konica Minolta ranked 4th in the precision machinery sector, having maintained the top 5 position since 2013.



[Patent Applications Overseas]

For Konica Minolta, whose overseas sales account for 80% of its revenues, acquisition of intellectual property rights in foreign countries is extremely important. From amongst the carefully selected Japanese patent applications, further screening is conducted to select important inventions for filing patent applications worldwide, notably in the United States and China, leading to an increase in the number of patent rights held worldwide. Particularly in China, which is increasing its importance not only as a producing country but also as a market, the number of patent rights held has doubled during the past 5 years.



Numbers of patent rights held and patents acquired (2017)

	Japan	United States	China
Number of patent rights held	12,926	6,836	1,514
Number of patents acquired	1,473 (ranked 12th among Japanese companies ^{*6})	495 (ranked 24th among Japanese companies ^{*7})	301

*3 An index derived by dividing the number of Konica Minolta’s patent applications cited by the Japan Patent Office examiner as reason for rejection in patent application filed by another party, by the total number of applications. Calculation was conducted by Konica Minolta using a commercially available search system. (Industry average in the graph was calculated by Konica Minolta based on a sample of companies selected from those engaged in similar business as Konica Minolta.)

*4 An index derived by dividing the number of Konica Minolta’s patent applications with respect to which file wrappers (folders containing communications between Japan Patent Office and applicants that took place after the filing of relevant applications) were inspected, by the total number of applications. Calculation was conducted by Konica Minolta using a commercially available search system. (Industry average in the graph was calculated by Konica Minolta based on a sample of companies selected from those engaged in similar business as Konica Minolta.)

*5 For details of “2017 Ranking of Companies’ Capability to Prevent Other Companies from Obtaining Patent Rights,” visit Patent Result Co., Ltd. website: <https://www.patentresult.co.jp/news/2018/06/fcitrprec.html>

*6 Ranking for the number of patents acquired is based on data from “Japan Patent Office Annual Report 2018” published by the Japan Patent Office.

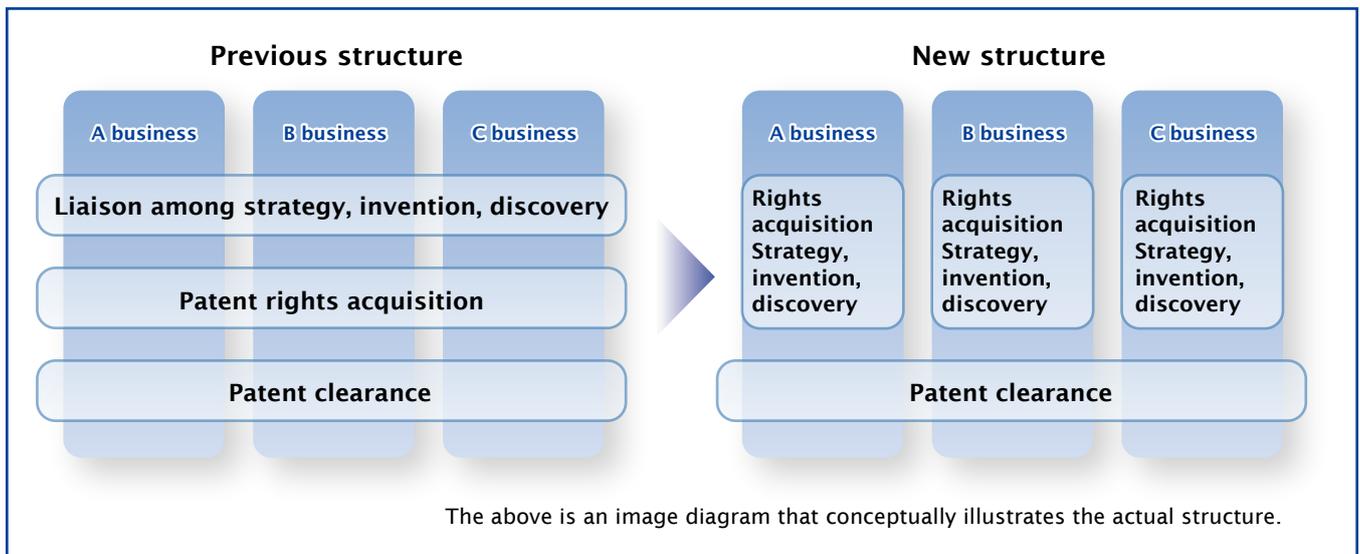
*7 Ranking is estimated based on information from Intellectual Property Owners Association (Top 300 Patent Owners).

System to Support Intellectual Property Activities

[Organizational Framework]

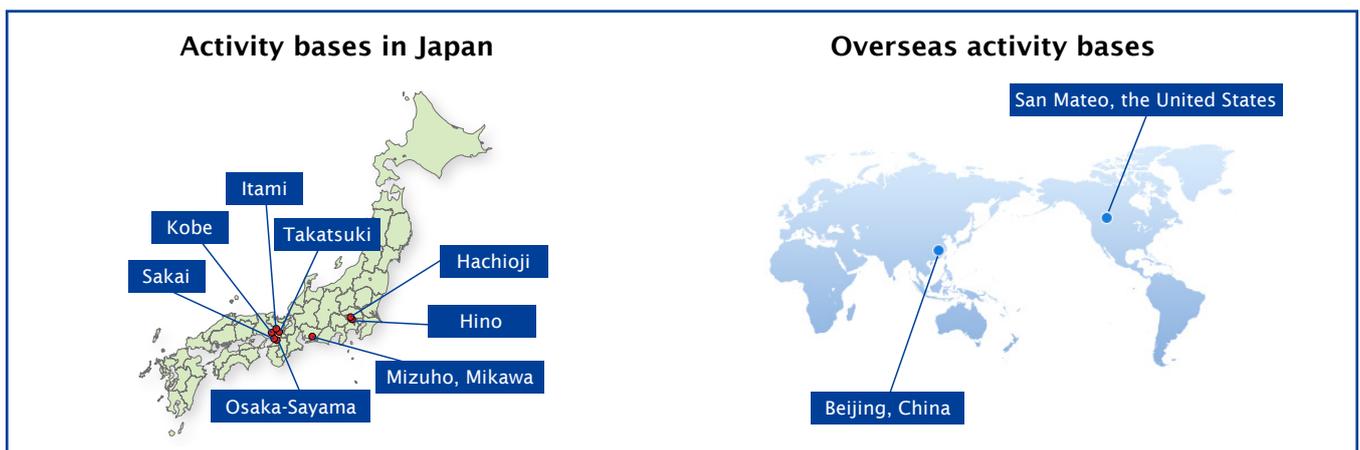
The responsibility for supervision and promotion of intellectual property activities lies with the Intellectual Property Division, which directly reports to the President. At the commencement of 2018, an organizational reform of the Intellectual Property Division was conducted, to transform from a structure organized for each IP function to one that is aligned to each of the Core, New, and Growth businesses. Through this reform, we will carry out our intellectual property strategy in line with the intellectual property environment specific to each business area, and thereby promote the new Medium Term Business Plan “SHINKA 2019” in a more powerful way.

Furthermore, in conjunction with the organizational reform, the operational process of intellectual property operation has been reformed for improved productivity. Having reviewed the roles and responsibilities of the patent office, R&D department and the Intellectual Property Division, and redefined the business standards that were established by function, a balanced operational process has been set up with focused allocation of IP resources to functions and operations that need to be strengthened for the implementation of intellectual property strategy.



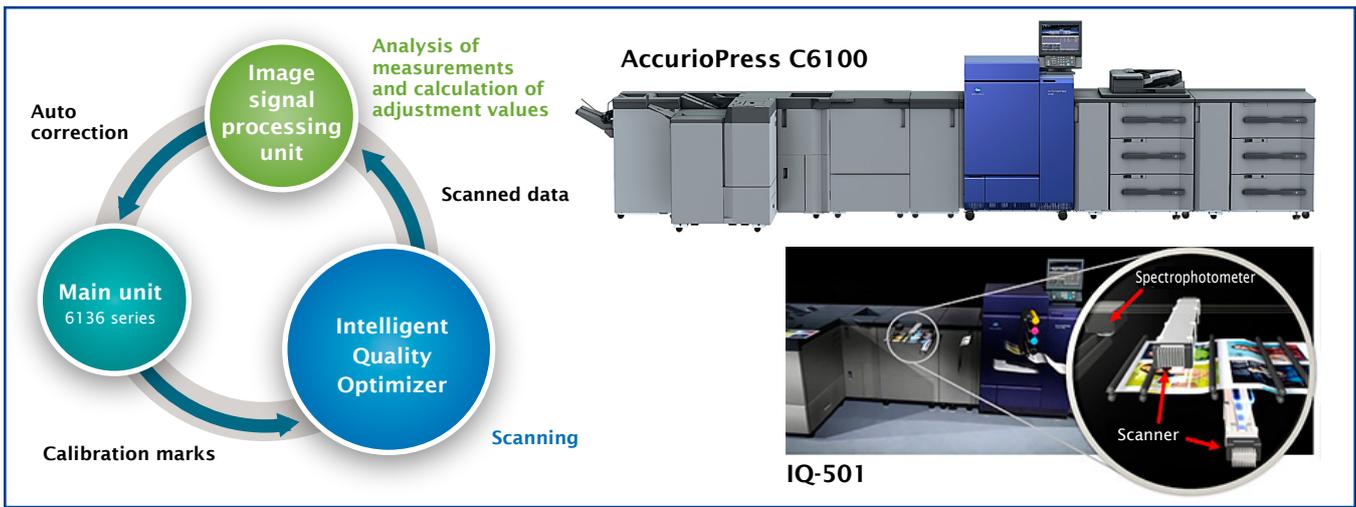
[Bases and Globalization]

The Intellectual Property Division has bases of operation not only in Japan but also in overseas development sites, to promote intellectual property activities at the development sites through face-to-face and close communication with developers in Japan and abroad. The headquarters of Intellectual Property Division is in Hachioji, Tokyo, which is the Group’s largest base and which oversees intellectual property activities at each operational base. In recent years, as a result of active M&A transactions notably in the New businesses, the number of overseas subsidiaries has been increasing. In order to beef up the promotion of intellectual property operations in these overseas subsidiaries and development bases, a further evolution of our global IP structure will be sought.

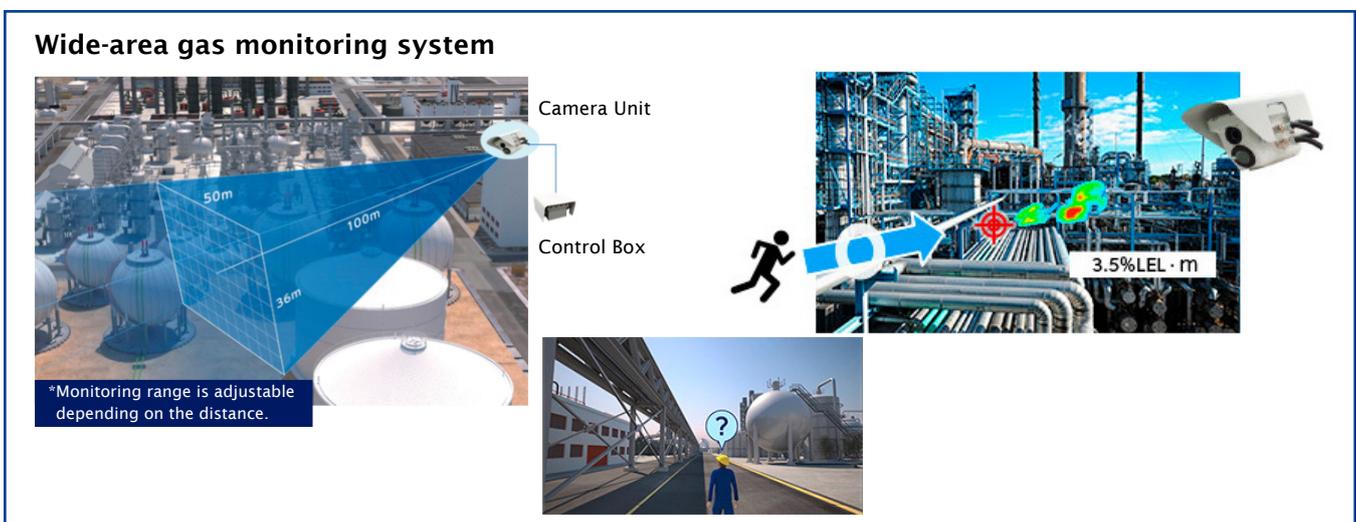


Examples of intellectual property activities in specific businesses

In the commercial printing area, Konica Minolta started offering “IQ-501^{*8},” Intelligent Quality Optimizer for digital printing systems. IQ-501 helps to achieve quality printing and shortening of job time by raising the efficiency and saving manpower in such jobs as darkness level management, color tone management, and double-sided print position calibration, jobs that take time to perform even for experienced operators. To realize the added value offered by IQ-501, various Konica Minolta’s proprietary technologies are applied such as hybrid color measuring technology that enables color measurement to be linked to scanner, control technology for real-time double-sided print position calibration, and paper feeding technology to realize the accuracy of above features, in respect of which patent applications have been filed. As of the end of fiscal 2017, approximately 500 patent applications have been filed worldwide, providing powerful support from the intellectual property aspect to the added value we are offering to our customers.



In the gas monitoring solution business, which is one of the New businesses, we offer a wide-area gas monitoring system to visualize gas leaks^{*9}. Previously, in gas leakage accidents, identifying leakage areas took time because it was difficult to ascertain where leaked gas was accumulating. The wide-area gas monitoring system intuitively “visualizes” the state of leakage by superimposing gas images on photographed images, and displays estimated leakage areas and concentration levels. As such, the system offers a safe approach to identifying gas leakage areas and a means to estimate repair procedures within a short time. With respect to the technologies relating to the wide-area gas monitoring system, approximately 200 patent applications have been filed worldwide as of the end of fiscal 2017, providing powerful support from the intellectual property aspect to the added value we are offering to our customers.



*8 For information on IQ-501 technology, visit our website:
https://www.konicaminolta.jp/about/research/technology_report/2018/pdf/15_kawatsu.pdf
 *9 For information on a wide-area gas monitoring system, visit our website:
<https://www.konicaminolta.com/jp-ja/gas/index.html>

Maintaining and Enhancing Brand Value

Konica Minolta is strongly committed to enhancing the Konica Minolta brand by actively filing trademark and design applications. With respect to the company name “KONICA MINOLTA” and symbols, trademark rights are acquired in almost all the countries (approximately 200) that have trademark system. In addition, with a view to achieving further penetration of our brand, trademark rights are also acquired for the KONICA MINOLTA company name expressed in Chinese, Hangul, Persian, and Arabic as used in the growth markets of China, Korea, and the Middle East. Including these company names and symbols, the number of trademark rights held as of the end of fiscal 2017 came to approximately 2,800 worldwide.

Further, Konica Minolta is proactively committed to improving and refining product designs and, as a result of these activities, won the Good Design Award 2017 hosted by the Japan Institute of Design Promotion for the five products and services presented below. To protect the designs of these and other products, we continuously file design applications and pursue efforts to acquire property rights in Japan and overseas. As of the end of fiscal 2017, we hold approximately 360 design rights worldwide.



Care support solution



Spectrophotometer "CM-M6"



Wireless digital radiography system "AeroDR fine"



Konica Minolta Planetarium "MANTEN" in Sunshine City



Planetarium projector "Infinium Σ"

Awards, etc.

Konica Minolta was selected as one of the excellent corporations in utilizing the intellectual property rights system and received the Commissioner of the Japan Patent Office Award*10 in the FY2018 Intellectual Property Achievement Awards of the Japan Patent Office. The Intellectual Property Achievement Awards are accorded every year to individuals who have contributed to the development and dissemination of the intellectual property rights system and who have raised awareness of the system, and to corporations which have most effectively taken advantage of the intellectual property rights system and contributed to its development. Konica Minolta positions its intellectual property strategy as a key management strategy and the award recognizes its activities to step up cross-organizational efforts in creating and making better use of intellectual property in each of its business areas.

■ Intellectual Property Achievement Awards

The Commissioner of the Japan Patent Office Award



*10 For details on the winners of FY2018 Intellectual Property Achievement Awards, visit Japan Patent Office website: https://www.jpo.go.jp/torikumi/hiroba/h30_tizai_kourou.htm



KONICA MINOLTA

KONICA MINOLTA, INC.

192-8505
2970 Ishikawa-machi, Hachioji-shi, Tokyo

Intellectual Property Division