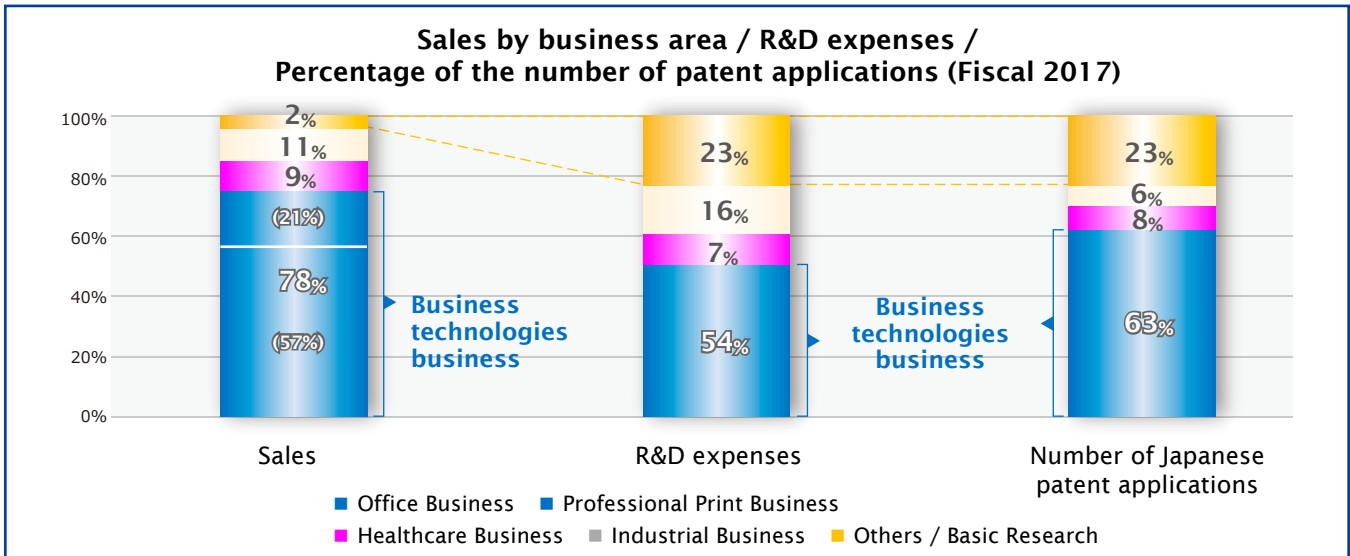


# Research & Development and Intellectual Property That Support the Businesses

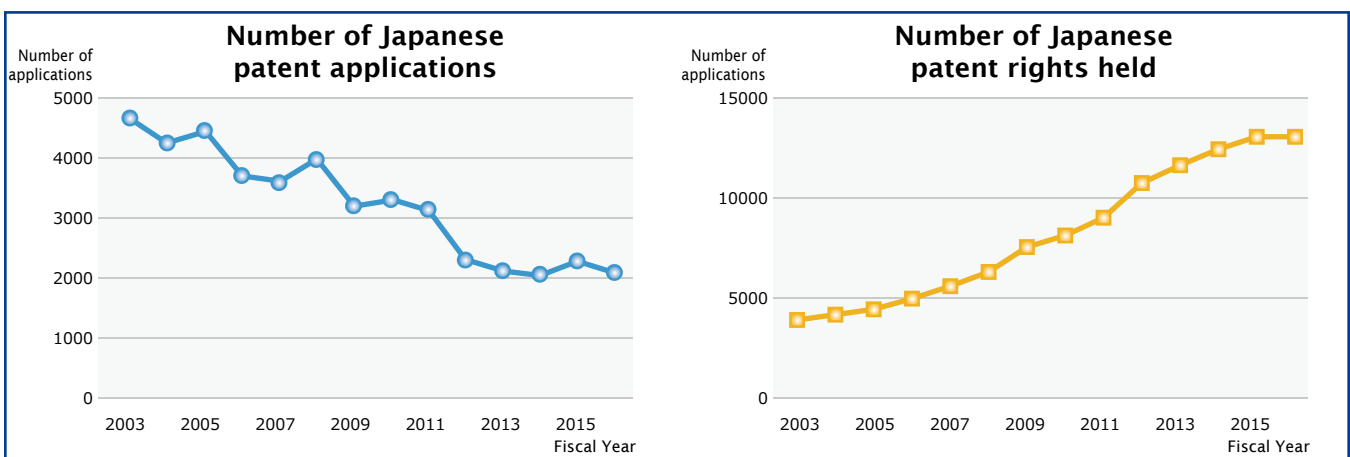
Konica Minolta is developing its business in the four segments of "Office Business" which handles MFPs (Multi-functional peripherals), "Professional Print Business" which handles digital color printing systems, "Healthcare Business" which handles digital X-ray diagnostic imaging filing systems, and "Industrial 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]

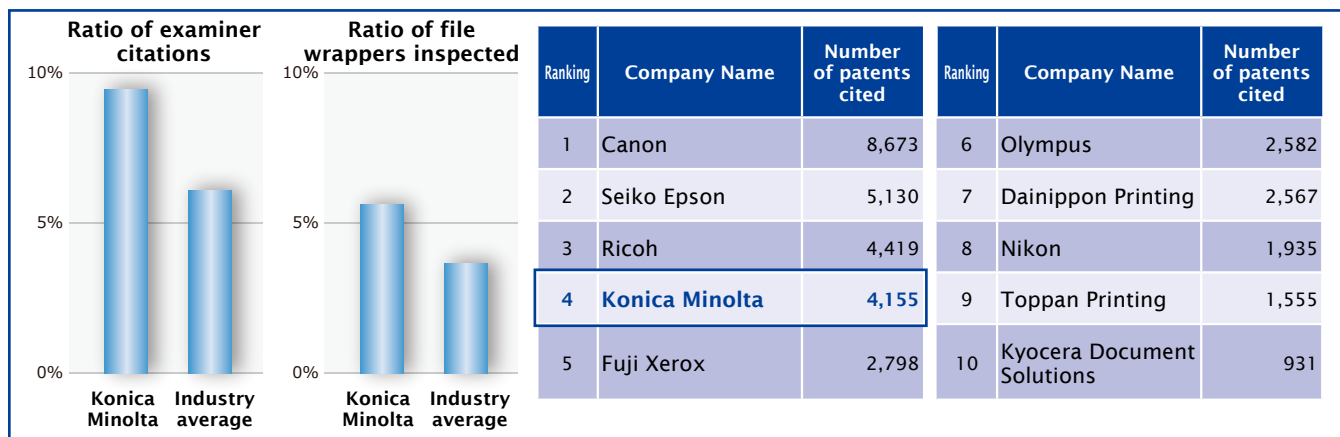
Since the integration of Konica Corporation and Minolta Co., Ltd. in 2003, Konica Minolta has been maintaining its efforts to acquire high quality patents with high investment efficiency by being selective in patent applications with focus on outstanding inventions, while paying attention to raising 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]

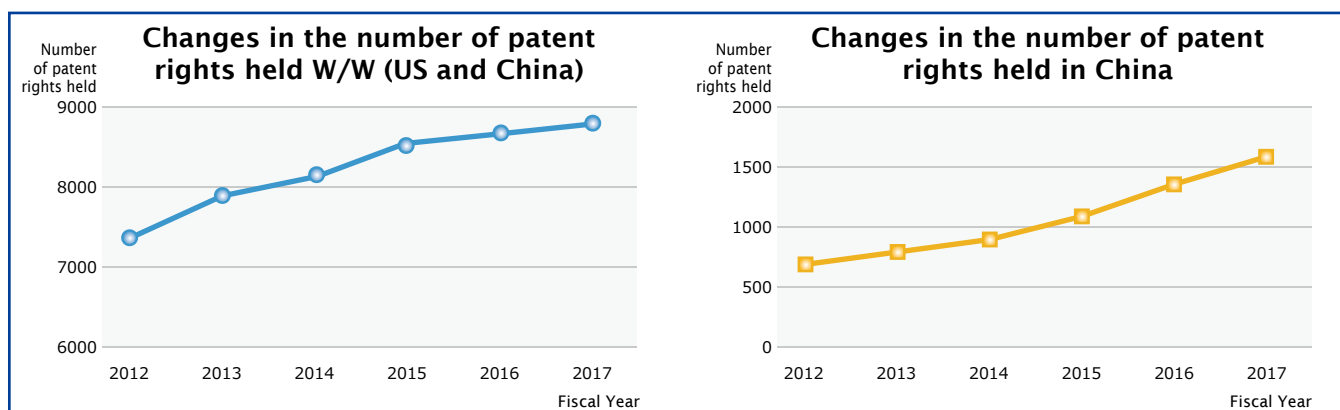
Indicators showing the value of Konica Minolta’s patent applications are rising.

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<sup>\*3</sup> and ratio of file wrappers inspected<sup>\*4</sup>. 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”<sup>\*5</sup>, 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	<b>12,926</b>	<b>6,836</b>	<b>1,514</b>
Number of patents acquired	<b>1,473</b> (ranked 12th among Japanese companies <sup>*6</sup> )	<b>495</b> (ranked 24th among Japanese companies <sup>*7</sup> )	<b>301</b>

\*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).