

## Intellectual Property Report 2017



Giving Shape to Ideas

## 1. Core Technologies and Business Strategies



Konica Minolta, Inc. ("Konica Minolta") is committed to creating new values through a highlevel fusion of its "core technologies" in such fields as materials, optics, imaging and nanofabrication. In the Medium Term Business Plan "SHINKA 2019"<sup>11</sup> announced in fiscal 2017, business units are identified either as "Core," "Growth," or "New." Specific to each of these three categories, various measures are implemented to realize highly profitable business by applying the "core technologies" mentioned above, and through synergy arising from open innovation. In particular, for businesses identified as "New," we are focusing our efforts on further developing the "core technologies" with a view to creating highly profitable businesses that can provide new values to society in the era of IoT.



- ROIC management at the business unit level
- Cultivation of digital customer value and profit expansion
- Establishment of a management base
- \*1 For information on Medium Term Business Plan "SHINKA 2019," visit our website: https://www.konicaminolta.com/about/investors/management/midterm\_plan\_presentations/index.html

## 2. R&D and Intellectual Property that Support Our Businesses

In comparison with the percentage of revenue by business (see the left graph below), R&D expenses "Industrial" and "others" account for a high percentage of total R&D expenditure (see the right graph below). This indicates active R&D investment in these business segments, which include both "New" and "Growth" businesses.



In line with our R&D investment activities "Industrial" and "Others" also account for a high percentage of the total number of patent applications (see graphs below), which include "New" and "Growth" businesses.



# 3. Intellectual Property Activities in Japan



Konica Minolta enhances return on investment concerning intellectual property by making intellectual property portfolios robust. To this end it is increasing the number of percentage of both examination requests and decision to grant a patent while keeping the number of patent applications low.



If, during the course of another party's patent application examination, Konica Minolta's patent application is cited as prior art or inspected by such other party, the relevant patent application of Konica Minolta can be deemed as having an outstanding value. To measure these, indexes have been provided in the form of ratio of examiner citations<sup>\*2</sup> and ratio of file wrappers inspected<sup>\*3</sup>. Our scores are high in both indexes, reflecting the large number of outstanding inventions we have filed in recent years.



\*2 An index derived by dividing the number of Konica Minolta's patent applications cited by 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 (Companies A to D in the graph are competitors).

\*3 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 (Companies A to D in the graph are competitors).

# 4. Intellectual property activities on a global basis



For Konica Minolta, whose overseas sales account for 80% of its revenues, intellectual property in foreign countries is extremely important. To support the globalization of our business activities, we have been increasing the ratio of Japanese patent applications for which foreign patents have been filed (percentage of global patent applications), while holding down the number of Japanese patent applications, as shown in the graph below.



Reflecting Konica Minolta's intellectual property activities on a global basis, the status of patents rights held in Japan, the US, and China in fiscal 2016 is as shown below.

	Japan	United States	China
Number of patent rights held	13,168	7,055	1,388
Number of patents acquired	<b>1,380</b> (ranked 22nd among Japanese companies*4)	<b>537</b> (ranked 19th among Japanese companies*5)	201

<sup>\*4</sup> The number of patents ranking is acquired based on data from "Japan Patent Office Annual Report 2017" published by the Japan Patent Office.

<sup>\*5</sup> The rank is estimated using data from the Intellectual Property Owners Association (Top 300 Patent Owners).

## 5. System to Support Intellectual Property Activities

![](_page_5_Picture_1.jpeg)

The core body of Konica Minolta's intellectual property activities is the Corporate Intellectual Property Division, which administers all aspects of intellectual property activities relating to its business. The Division is organized with the four functions as presented below. The importance of IoT is growing in recent years, globally and for Konica Minolta as well, in response to which we have set up a cross-organizational IoT project team to provide intellectual property support in the IoT area.

![](_page_5_Figure_3.jpeg)

We establish bases where members of the Intellectual Property Division carry out such initiatives at respective development sites, while creating an environment that facilitates close communications with developers.

![](_page_5_Figure_5.jpeg)

The Intellectual Property Division has its largest base in one of the Group's biggest R&D sites (SKT Building<sup>\*6</sup> in Hachioji, Tokyo), enabling it to maintain close communications with the development team.

![](_page_5_Picture_7.jpeg)

\*6 For information on the SKT Building, visit our website: https://www.konicaminolta.com/about/releases/2014/1029\_01\_01.html

# 6. Examples of intellectual property activities in specific businesses

![](_page_6_Picture_1.jpeg)

Konica Minolta developed a new technique called "HSTT (High Sensitive Tissue Testing)" for the accurate detection of cancer cell proteins using PID.

![](_page_6_Figure_3.jpeg)

Applying this HSTT technology in personalized medicine and support systems for pharmaceutical development<sup>\*7</sup>, Konica Minolta seeks to grow this field as a "New business" and make a full-scale entry, with plans to launch the business in the United States, a pharmaceutical powerhouse, during 2017<sup>\*7</sup>. To support this move powerfully from the intellectual property aspect, we have actively pushed forward with patent applications in the United States, having filed close to a hundred applications as of the end of fiscal 2016.

![](_page_6_Figure_5.jpeg)

\*7 For information on personalized medicine and support systems in pharmaceutical development, visit our website (refer to Special Feature 1): https://www.konicaminolta.jp/about/investors/ir\_library/br/br2017\_2nd/special.html (Japanese)

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#### 7. Awards, etc.

![](_page_7_Picture_1.jpeg)

At the fiscal 2016 awarding of Local Commendation for Invention (organized by the Japan Institute of Invention and Innovation), Konica Minolta received an award of excellence for Tokyo due to its Patent No. 5,024,192 invention. This award-winning invention contributes to improving the image quality and stability of Konica Minolta's production printing flagship model bizhub PRESS C1100/C1085 which already enjoys a favorable reception from our customers for its high image quality and stability.

#### Received fiscal 2016 award of excellence for Tokyo from the Japan Institute of Invention and Innovation

Name of invention: Image forming apparatus mounted with toner charge measurement Inventors: Yutaka Miyasaka, Nobuyasu Tamura, Kazutoshi Kobayashi

To be applied in electrophotographic color image forming apparatuses used in digital printing machines, etc. it is a device that provides a means for a simple, yet highly accurate measurement of toner charge Q/ M for each color inside the apparatus. Installation on the products has been made possible by making use of density sensor to detect the toner adhesion amount that is necessary to calculate the charge amount. It is an invention that enhances the stability of printing machines, inasmuch as data obtained from measurement of toner charge may be used for such purposes as adjustment of imaging mechanical processing conditions, to improve the stability of image quality and color reproduction.

![](_page_7_Figure_6.jpeg)

## On November 10, 2016, Nihon Keizai Shimbun reported that Konica Minolta was ranked 6th in "Patent asset volume ranking for all industries" (fiscal 2015 registration) \*8 published by Patent Result Co., Ltd.

Ranking	Previous year ranking	Company Name	Patent asset volume (pt)	Number of patents
1	1	Mitsubishi Electric	135,429.2	3,394
2	2	Toyota	131,974.7	4,325
3	3	Panasonic	127,267.8	3,398
4	4	Canon	95,795.4	3,699
5	10	Honda	86,187.7	1,940
6	15	Konica Minolta	73,190.2	1,608

In the article, Konica Minolta is presented as having significantly improved its ranking from 15th in fiscal 2015. While in terms of the number of registered patents, we ranked 13th in fiscal 2015 with 1,608 registered patents and 22nd in fiscal 2016 with 1,380 registered patents (see P4), we earned the 6th place in the ranking for patent asset volume.

\*8 To view the article on "Patent asset volume ranking for all industries", visit Patent Result Co., Ltd. website: https://www.patentresult.co.jp/news/2016/11/all.html (Japanese)

### 8. Maintaining and Enhancing Brand Value

![](_page_8_Picture_1.jpeg)

Konica Minolta is committed proactively to improving and refining product design which we regard to be a key element in our efforts to maintain and enhance brand value. As a result of these activities, Konica Minolta won the Good Design Award 2016, awarded by the Japan Institute of Design Promotion (JDP) for the three product groups presented below. To protect the designs of these and other products of Konica Minolta, we also file design applications and pursue efforts to acquire intellectual property rights in Japan and overseas, from the perspective of heightening brand value and addressing threats posed by counterfeit goods. As such, we have holdings of approximately 340 design rights worldwide as of the end of fiscal 2016.

![](_page_8_Picture_3.jpeg)

Information included in this report with regard to the future prospects of Konica Minolta is provided as forecasts based on the business environment at the time of writing. Such information is subject to change according to changes in the business environment.

<sup>\*</sup> KONICA MINOLTA logos and symbols, Giving Shape to Ideas, bizhub, WCc, Workplace Hub, and NASSENGER are the trademarks or registered trademarks of Konica Minolta. Other brand names and product descriptions are the trademarks or registered trademarks of their respective companies.

![](_page_9_Picture_0.jpeg)

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