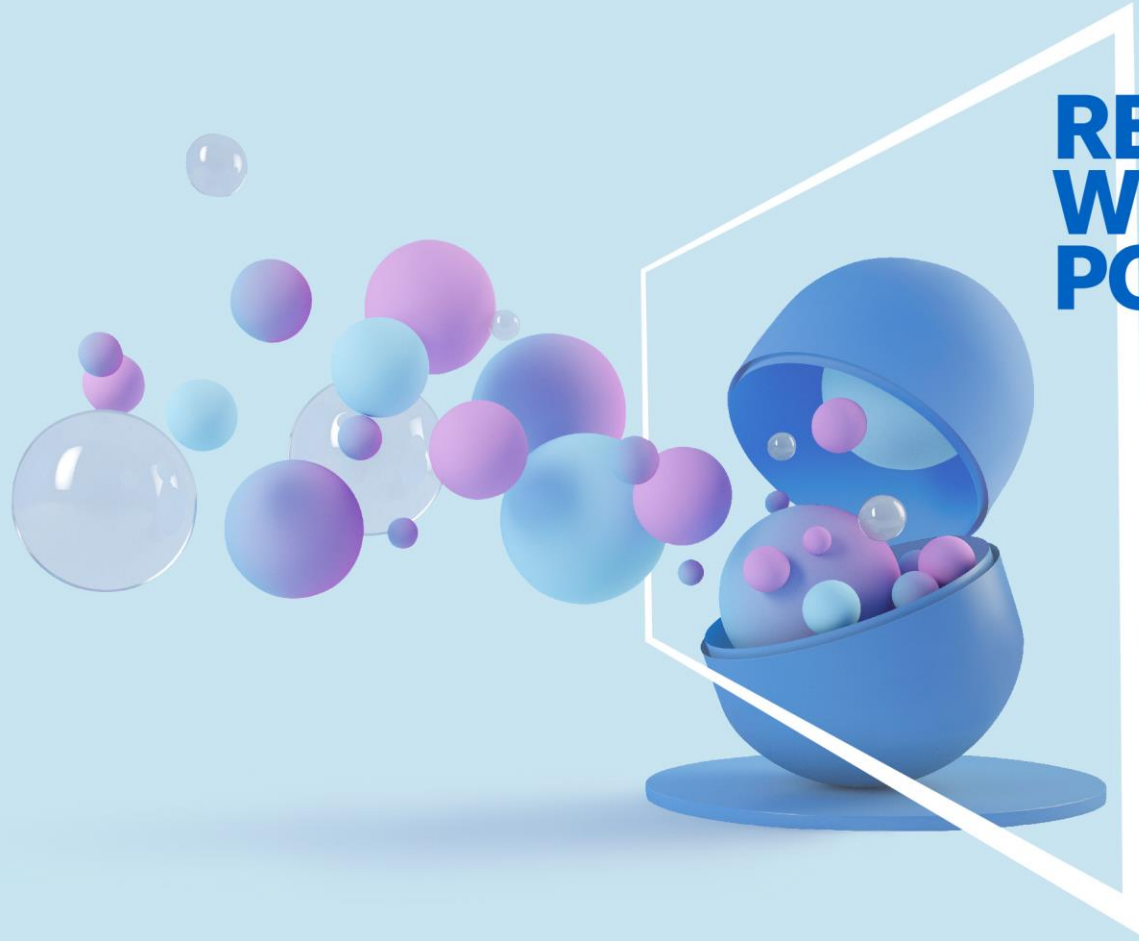




KONICA MINOLTA

KONICA MINOLTA, INC.
Intellectual Property Report 2022



**RETHINK
WHAT'S
POSSIBLE**

Giving Shape to Ideas

Introduction

The outlook of the global economy continues to be uncertain due to the global events such as the Ukraine situation and the COVID-19 pandemic, and its recovery pace has been slow. Even under these severe conditions, corporations are required to create a socially significant value to improve their own corporate value and to meet the expectations of stakeholders including shareholders and investors.

In recent years, intangible assets, including intellectual property, have been attracting attention as important management resources which serve as a source of corporate competitiveness. By investing in and utilizing such intellectual property and intangible assets, Konica Minolta has been strengthening its competitiveness and improving corporate value.

This Intellectual Property Report mainly explains our intellectual property activities in fiscal 2021 such as intellectual property investment and utilization, human capital strategy, and intellectual property DX. I would be grateful if this Report could help you understand our intellectual property activities and could lead to constructive and deep dialogue with our stakeholders.

The fiscal year 2022 is the last year of our Medium-Term Business Plan "DX2022" and "Intellectual Property Strategy 2017-2022." With the aim of completing business portfolio transformation under the new management, Konica Minolta is continuously moving ahead with intellectual property activities that contributes to advancing corporate value.

Tetsuya Matsueda

Corporate Senior Vice President

General Manager, Corporate Legal Division and Responsible for General Affairs, Intellectual Property, Compliance and Crisis Management



Directions for Intellectual Property Activities

* For related information :
 Integrated Report 2022
 p18. Management Policies in Preparation for FY2025
https://www.konicaminolta.com/shared/changeable/investors/include/ir_library/ar/ar2022/pdf/konica_minolta_ar2022_e_03_221026.pdf
 Integrated Report 2022
 p5. Konica Minolta Businesses
 p6. Value Creation Process
https://www.konicaminolta.com/shared/changeable/investors/include/ir_library/ar/ar2022/pdf/konica_minolta_ar2022_e_02.pdf

Intellectual Property Activities for Sustainable Value Creation

Our intellectual property strategy and intellectual property activities are incorporated into our value creation process as a source of creating an OUTPUT and OUTCOME by business activities. The strategy and activities have been helping develop brand which leads to customer's trust, enhance each business' competitiveness, and further provide a solution for future social issues (Fig. 1). The OUTCOME created by business activities becomes a resource for re-investment in intellectual property, and sustainable value creation is realized. Also, by concentrating investments in intellectual property on technologies, products, and services which serve as the core of our Growth Strategy and by shifting investment allocation to growth fields, we have been promoting the business portfolio transformation involved in our Medium-Term Business Plan (→ p3,9). Intellectual property includes intellectual property rights (such as patent rights, design rights, trademark rights and copyrights), know-how and data. The intellectual property working as the source of competitiveness differs from business to business. As Konica Minolta is in the manufacturing business, our focus is on creating effective patent assets which protect technology creating customer value. Further, along with the business portfolio transformation, we have been implementing intellectual property mix strategy through protecting know-how and designing contract boilerplates to utilize data in accordance with the business model and business environment. Among others, particularly for patent evaluation, we use not only our original indexes but also those adopted in a third-party tool. These indexes thereby enable objective evaluation and relative comparison with other companies (→ p8).

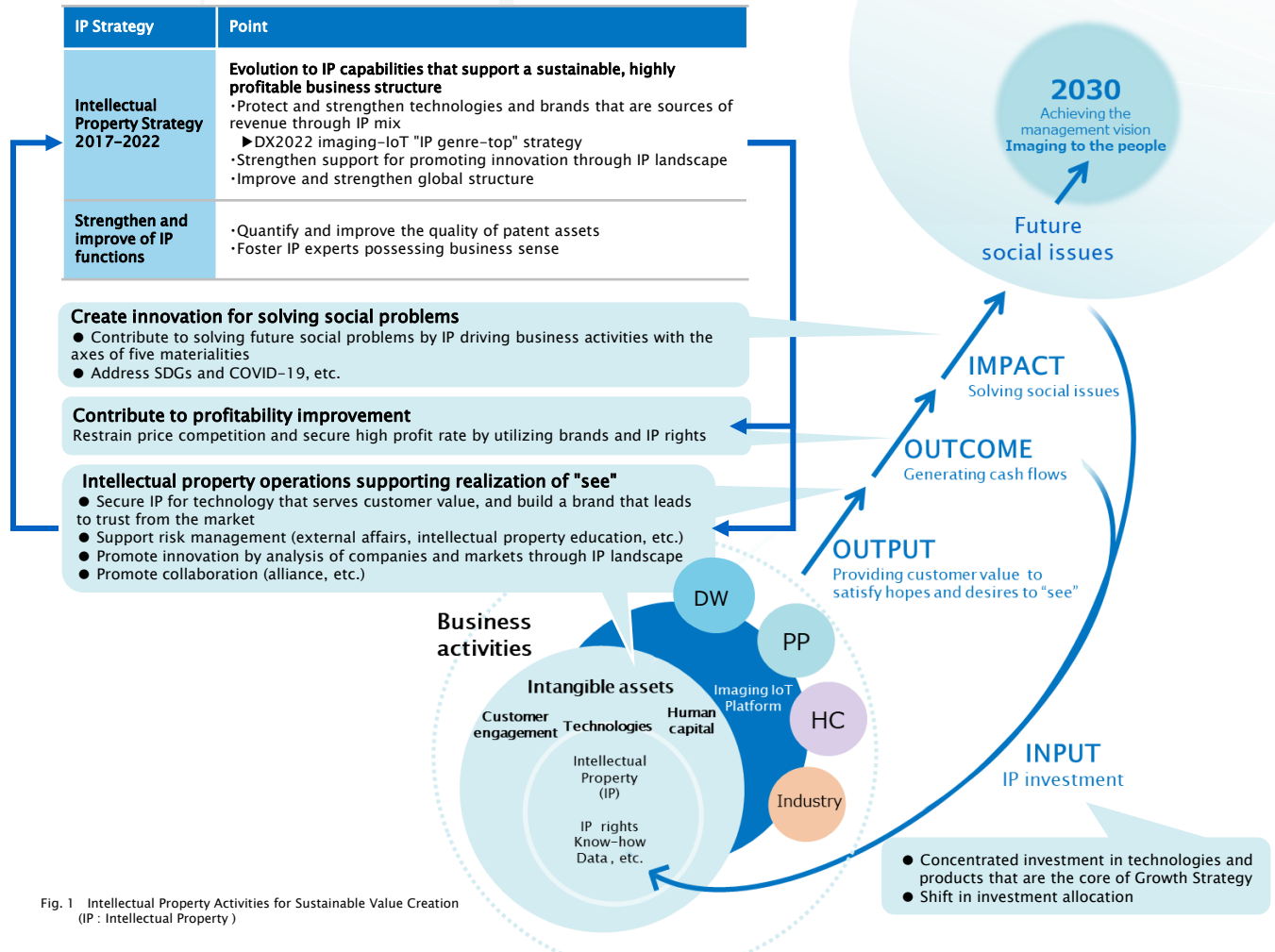


Fig. 1 Intellectual Property Activities for Sustainable Value Creation (IP: Intellectual Property)

Efforts to Strengthen Intellectual Property Capabilities

I Portfolio Transformation (i) Transformation to Digital Workplace Business

We have been promoting the transformation from the Office Printing Business centering on multi-functional peripherals to the Digital Workplace Business including digital solutions combined with the peripherals. In the Digital Workplace Business, the profitability is being increased not only by improving infrastructure-based services, such as cloud support and security services, but also by bringing customer success through monitoring changes of customer needs and interests. In terms of intellectual property, in addition to the conventional strategy of protecting technologies and designs in hardware by securing intellectual property rights, we are executing multifaceted strategies for data, a key to business growth. Specifically, in line with the strategies, the extensive use of data is being promoted pursuant to contracts with customers. For example, we are offering failure prediction for our multi-functional peripherals installed at our customers' sites, based on data obtained from the machines, which is related to usage and quality change of printings. For that purpose, we have been acquiring patent rights for the system or software that support customers' business and utilizing such data under the terms of contracts with the customers while protecting their important information. With these activities, we have been supporting the provision of customer value which realizes downtime reduction on the customer side and speedy maintenance services*.

* For related information :
Digital Workplace Business :
Information collection and analysis system for remote maintenance△
https://research.konicaminolta.com/en/technology/tech_details/pdm/

II Portfolio Transformation (ii) Business Growth in "Measurement, Inspection, and Diagnosis" Fields

In addition, Konica Minolta has been establishing a reliable source of profit, instead of the Office Business, by expanding to the "measurement, inspection, and diagnosis" fields. As intellectual property activities which accelerate this business expansion, for technologies and products which are the core of our Growth Strategy, we have been building patent barriers with intensive patent applications and then establishing a sustainable genre-top position. In particular, such technologies are, for the Industrial Business, visual inspection technology and behavior detection technology for use with FORXAI; for the Healthcare Business, X-ray dynamic analysis technology; and for the Professional Printing Business, automation technology which is mounted on an automatic quality optimization unit IQ-501*. Due to the development and execution of the intellectual property strategy according to the business portfolio transformation, the ratio of the number of patents for the "measurement, inspection, and diagnosis" fields in our patent portfolio in fiscal 2021 has increased by 1.4 times as compared with that in fiscal 2017 (Fig. 2).

Also, in the "measurement, inspection, and diagnosis" fields as well, we have been pursuing our intellectual property strategy to promote data utilization. In the Healthcare Business, as an example, with a focus on the importance of medical data, we are proactively utilizing such data and adding new value to health care services, and ultimately strengthening continuous business competitiveness. In utilizing the medical data, it is required to comply with various laws and regulations as well as contracts with the third-parties involved in handling the data. In fiscal 2021, in the Healthcare Business, we explored the framework for data

utilization in accordance with the Japanese Next Generation Medical Infrastructure Act and addressed the amended Japanese Act on the Protection of Personal Information. Further, with the contractual strategy for promoting co-creation with partners, we helped the Healthcare Business accelerate such data utilization.

* For related information :
Industry Business : Technology
<https://research.konicaminolta.com/en/technology/industry/>

Healthcare Business : Dynamic digital radiography and image analysis technologies
https://research.konicaminolta.com/en/technology/tech_details/dynamic_analysis/

Professional Print Business : Real-time printed image analysis technology
https://research.konicaminolta.com/en/technology/tech_details/professional_print/

Patents portfolio transformations*
*Indexed with FY2017 as 1

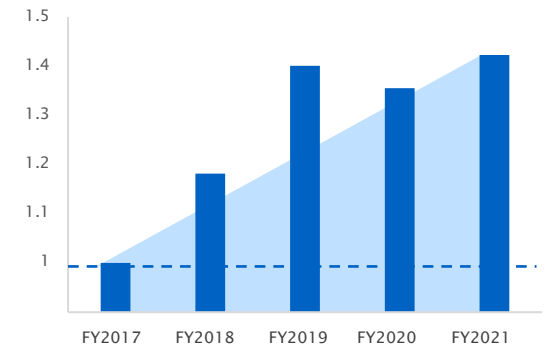


Fig. 2 Percentage of patents in the "measurement, inspection, and diagnosis" fields

*Based on publications in Japan

Structure Supporting Intellectual Property Activities

I Structure Promoting Intellectual Property Activities at Konica Minolta Group

Intellectual Property Division formulates and promotes Konica Minolta Group intellectual property policy based on our management strategy, and also comprehensively manages the intellectual property functions of each division and advances intellectual property activities in cooperation with each such division*. We revised Konica Minolta Group Charter of Corporate Behavior in fiscal 2021. It was confirmed in the Charter that we respect any effective intellectual property of third-parties in performing business activities. To ensure compliance with the Charter, we have adopted the unitary management system in which the confirmation and approval of the Intellectual Property Division is required for executing any contracts with third-parties containing provisions regarding handling of intellectual property. In the global structure, the Intellectual Property Division functions as headquarters for comprehensively formulating intellectual property strategies for Konica Minolta Group. Also, the Division has been supporting intellectual property activities at development sites in Japan and overseas to avoid losing business opportunities and incurring serious risks in connection with intellectual property (Fig. 3).

I Share Intellectual Property Strategies and Intellectual Property Information

Konica Minolta, in line with the phase of each of its businesses, has been laying out intellectual property strategies and allocating intellectual property investments. The strategies and investments are executed after being shared with Executive Officers in charge of the business divisions and a Corporate Vice President in

charge of the Intellectual Property Division. The Corporate Vice President also participates in the Key Management Meetings on investment matters like M&A to deliberate the assessment of intellectual property assets and the intellectual property risk of the investment destination, and further discuss whether such investment satisfies business plans and intellectual property strategies. After the deliberations, the investment matters are reported and proposed to the Board of Directors*. In addition, as one of company-wide supports, we have been promoting innovation and assisting business creation by implementing an "Intellectual Property Landscape" (IPL) in which a business environment is analyzed based on intellectual property information and through which the strategies for management and business are proposed. Since fiscal 2019 when a special task team was organized in the Intellectual Property Division, the team has accumulated know-how and deployed a system which enables more flexible analysis.

Recognizing that the IPL will play an increasingly important role in future in building business strategies, we continue to make the analysis process more sophisticated toward the expansion of the use of the IPL.

* For related information :
 Konica Minolta Group Charter of Corporate Behavior
 p10. 2-8 Protection of confidential information and intellectual properties of Konica Minolta and third parties
https://www.konicaminolta.com/media-library/global-en/corporate/pdf/charter_202204_en.pdf

Corporate Governance Report : Investment in intangible assets
https://www.konicaminolta.com/global-en/investors/ir_library/governance/index.html

Intellectual Property Report 2021 : Governance
https://www.konicaminolta.com/shared/changeable/investors/include/ir_library/intellectual_property/pdf/ip2021.pdf

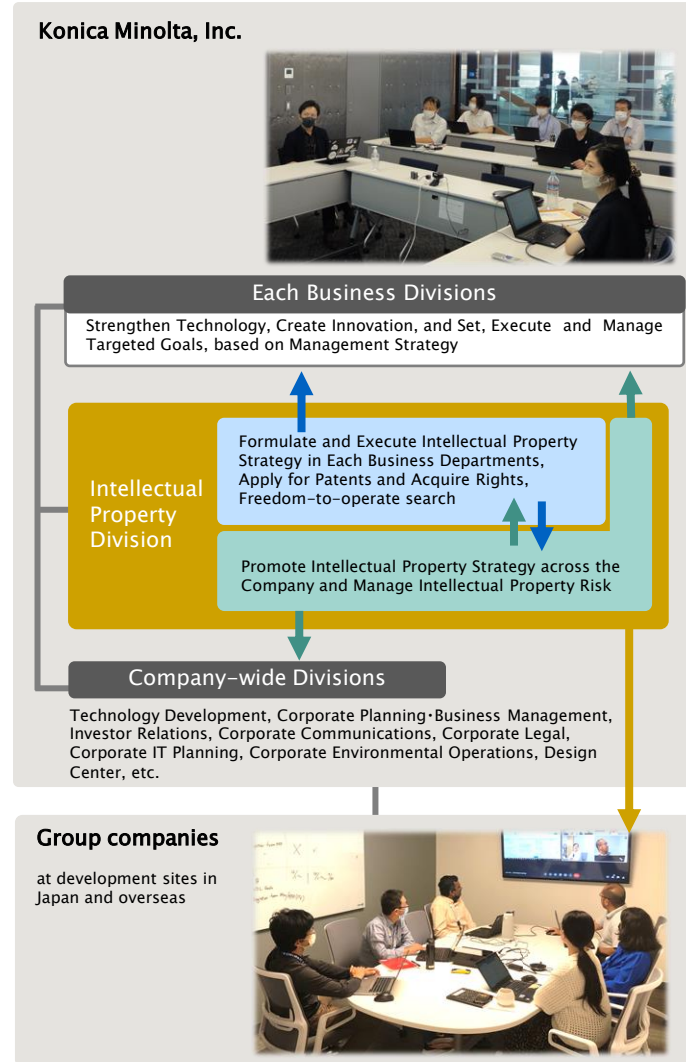


Fig. 3 Structure Promoting Intellectual Property Activities at Konica Minolta Group

【Special Topics】 Intellectual Property Human Capital Strategy

Corporations are continuously pursuing changes and are therefore in compelling need of those who can adjust to this rapid change. Believing that "intellectual property activities are supported by human capital," we are strengthening intellectual property organizations and functions and laying the solid groundwork for the creation of intellectual property. To that end, several educational programs have been implemented, and the upskilling support has been expanded to foster human capital who can take the lead in creating new values.

I Strengthen Intellectual Property Organizations and Functions

Konica Minolta defines the well-qualified person to advance our intellectual property activities as having not only expertise and skills to utilize for business, but also the ability to plan, propose and manage on a global basis while keeping up with rapid changes in business environment from a business and management perspective. To foster such qualified person, we have listed up required knowledge and skills for the Intellectual Property Division members. And to develop and reinforce such knowledge and skills, and to enhance multiple perspectives, various measures are being implemented, such as overseas stay, job rotation in and out of the Intellectual Property Division, internal/external training and participation in external organizations. Due to the human capital strategy based on "Intellectual Property Strategy 2017-2022", 42% of the Intellectual Property Division members in fiscal 2021 have experience in studying law abroad, being rotated to the R&D, Management or IR Divisions, or participating in outside intellectual property-related committees (Fig. 4). It is apparent that the development of human capital at the Intellectual Property Division is steadily progressing.

I Maintain and Improve Infrastructure Creating Intellectual Property

We, in parallel with the human capital strategy to strengthen the Intellectual Property Division organizationally and functionally, are timely performing education required to address the change of social environment, such as the education designed to improve intellectual property literacy (Konica Minolta College) and the education on the updates of intellectual property-related laws and intellectual property associated with AI and DX. Our intellectual property is being created from the R&D activities of each business divisions, the alliances with partners, and the relations with customers. Accordingly, each employee at not only R&D Division but also Sales Division who contacts with the alliance and customers is required to have knowledge of the utilization and management of intellectual property. Konica Minolta College has been providing a wide variety of programs which participants can choose and take at the right timing. The programs range from the basics of intellectual property-related laws and procedures to intellectual property management (Fig. 5). Such intellectual property education is also provided to our group companies with development functions. In this way, our intellectual property infrastructure is being expanded and strengthened on a worldwide basis.

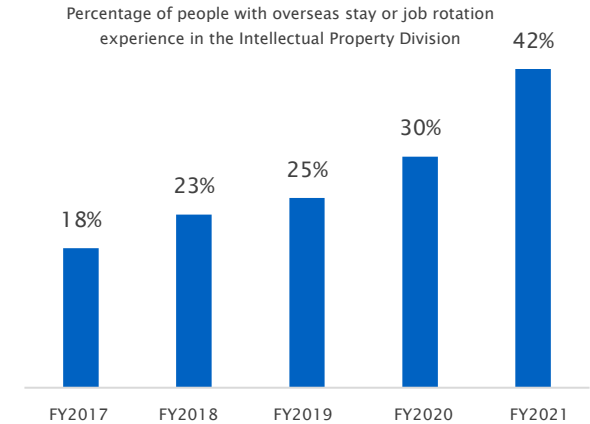


Fig. 4 Diversification of human capital in the Intellectual Property Division

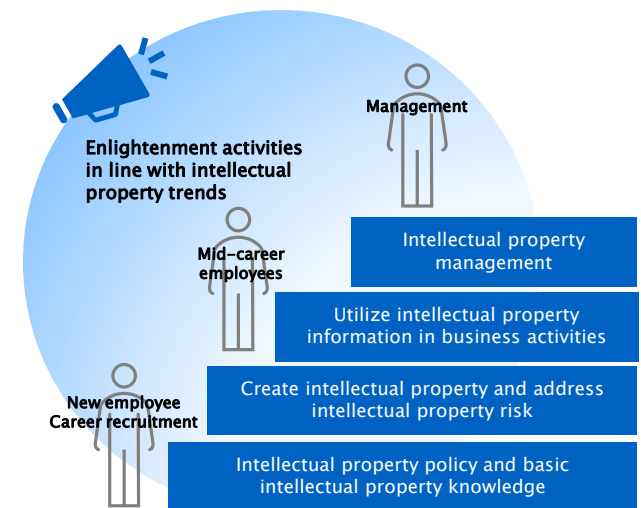


Fig. 5 Intellectual Property education programs by feature

【Special Topics】 DX for Intellectual Property Operations

Konica Minolta is, in addressing the DX for the intellectual property operations and processes, aiming to realize two ideal visions; "sophisticating and increasing effectiveness of our intellectual property strategy" and "improving the quality of intellectual property rights." The maximization of the value of intellectual property is promoted through the utilization and expansion of data and digital technology, the enhancement of intellectual property intelligence functions, etc.

■ Promote DX

In fiscal 2021, we promoted the intellectual property DX with use of AI focusing on streamlining collection and aggregation of necessary information and visualizing such information into a form suitable for analysis (Fig. 6). The automation of intellectual property operations and

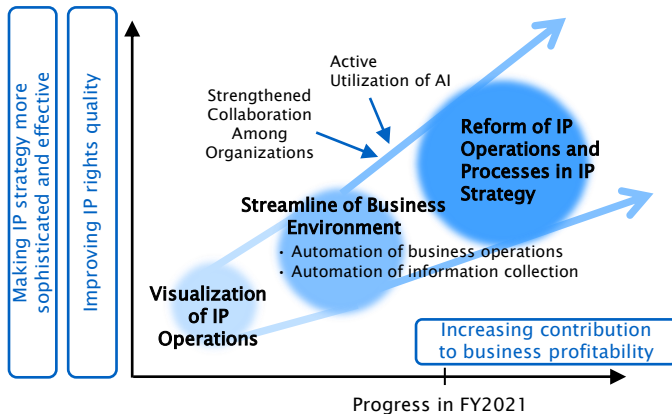


Fig. 6 DX promotion policy *IP : Intellectual Property

data/information collection, which we have always been working on, reduced drastically the burden on intellectual property operations and its execution management. In response, we have shifted focus on high-value-added operations centering on data analytics. For visualization of collected data, we have creatively designed data display to understand the current value of our intellectual property rights, to extract singular points and to predict trends of such value. With the visualization, leading to the early finding of problems in innovation creation support and intellectual property portfolio construction, there has been steady progress in sophisticated data analytics (Fig. 7). This visualized information has been facilitating further communication with our management and the R&D Division. Also, the visualization and analysis of information from a wealth of perspectives has been contributing to enhancement of IPL and other intellectual property intelligence functions and systems. The efficiency of intellectual property operations is being promoted not only at the Intellectual Property Division but also company-widely. We addressed the improvement of efficiency of patent search in fiscal 2021. Specifically, we developed a software application which provides, in one step, information gathered from several patent research tools, and also evaluates whether search criteria input by the user is appropriate in order to sustain the quality of search results. This application has been

internally released and helping improve the quality and efficiency of patent search conducted by our employees. This was acknowledged as an applaudable endeavor in our global award system in fiscal 2022 (Konica Minolta Awards*). Due to the intellectual property DX being further understood and better-recognized internally, there have been more occasions where such DX is utilized.

* For related information :
Konica Minolta Awards
<https://www.konicaminolta.com/about/csr/social/human-capital/communication.html>

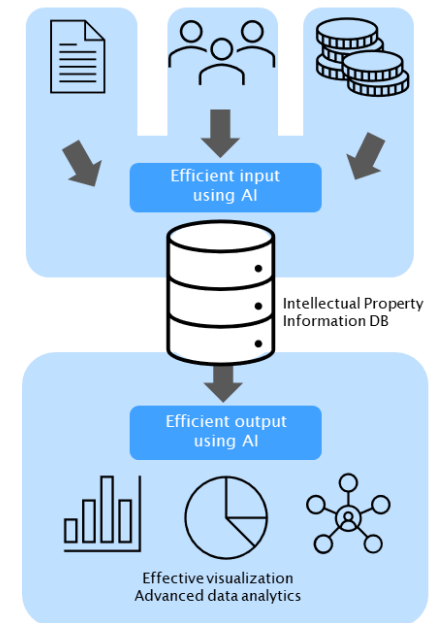


Fig. 7 Utilization of AI to transform intellectual property operations and processes

Branding

Design

Konica Minolta has been creating attractive designs to enhance brand strength and establish competitive advantage. We achieved various awards in Japan and overseas for five products, such as a gas monitoring solution and a biological information monitoring system "VS1" in fiscal 2021*. As for the gas monitoring solution, its design received a "Good Design Award" organized by the Japan Institute of Design Promotion. The design was highly recognized for maximizing customer value of realizing stable operation of industrial plants by visualizing gas leakage.



Fig. 8 Gas Monitoring Solution

To make sure that the results of these creative activities are protected, educational programs for our designers are put in place. In response to the revision of the Design Act in Japan, which newly included graphic images of GUI in the scope of protection by design rights, the Intellectual Property Division developed and distributed on-line educational materials and educated our employees on practical use of such new design rights leading to the creation of customer value. As to an application software provided through a network, acquiring design rights is gaining momentum to protect graphic images with a unique sense of beauty and excellent operability. Toward increasing our corporate value, as well as values of our products and services, designs addressing various needs of customers are being strategically protected and utilized by design rights.

* For related information :
Konica Minolta Design
<https://www.konicaminolta.com/global-en/design/index.html>

Brand

Our corporate brands, such as "KONICA MINOLTA" and our symbol logo, represent the credit and trust in Konica Minolta Group, and their value is built by all of our corporate activities. For purposes of maintaining and enhancing brand value, we have the basic policy for use and management of the corporate brands in place.

Under such policy, the Intellectual Property Division is in charge of the legal protection of these corporate brands. More specifically, we have secured trademark registrations for the corporate brands in about 180 countries and have been taking actions (e.g., confiscation of third-party products using our corporate brands without permission, and monitoring and invalidation of trademark registration applications filed by third parties for their marks which are confusingly similar to ours). In particular, in China, Konica Minolta is continuously detecting sales of counterfeit toner bottles, and actively filing oppositions against third-party trademark applications which may cause confusion. These result in preventing damage to the brand value. With these efforts, the corporate brands, one of the driving forces for sustained growth of Konica Minolta, is legally protected, and contributes to the maintenance and improvement of trust placed in Konica Minolta Group.

We are promoting the legal protection by trademark for products and services as well. With respect to our own planetarium which opened at Yokohama in March 2022, we are providing visitors with a rich and unique "starry sky" experience under the trademark "PLANETARIA" and its logo mark.



Fig. 9 KONICA MINOLTA PLANETARIA YOKOHAMA trademark

Key Data for Five-Year Period

(Millions of yen)	FY2017	FY2018	FY2019	FY2020	FY2021
Revenue	1,031,256	1,059,120	996,101	863,381	911,426
Operating Profit	53,844	62,444	8,211	-16,266	-22,297
R&D Expenses	77,021	78,395	74,040	65,034	62,678
Number of Patents Owned	21,276	20,235	20,453	19,814	19,737
In Japan	12,926	11,678	11,757	11,083	11,174
Overseas	8,350	8,557	8,696	8,731	8,563
Number of Patents Acquired	2,269	2,053	2,198	1,850	1,602
In Japan	1,473	1,183	1,226	1,234	1,163
Ranking Among Japanese Corporations *1	12	22	19	11	15
Overseas	796	870	972	616	439
Ranking Among Japanese Corporations in Number of Patents Acquired in the US *2	24	21	24	22	33
Rate of Requests for Examination	48.2%	79.3%	64.5%	82.0%	83.7%
Rate of Patent Grants Decided	83.0%	81.1%	83.0%	76.4%	78.6%

*1 Ranking by number of patents acquired based on information in the Japan Patent Office Annual Report 2022 published by the Japan Patent Office.
 *2 Ranking estimated from information in Intellectual Property Owners Association Top 300 Patent Owners.
 - IFRS Standards
 - Number of Patents Acquired: In Japan = Japanese patents; overseas = US and Chinese patents
 - Number Owned: In Japan = Japanese patents; overseas = US and Chinese patents
 - Rate of Requests for Examination: Number of requests for examination / Number of cases with examination request deadline date within the fiscal year
 - Rate of Patent Grants Decided: Number of patent grants decided / (Number of patent grants decided + Number of grants denied + Number of cases withdrawn after first action or abandoned)

Konica Minolta has been constructing patent portfolios in line with each business plan based on the Medium-Term Business Plan. In fiscal 2021, in accordance with our business conditions and changes in business environments, we carefully examined patent acquisitions for businesses facing an urgent need for profit recovery, whereas for businesses being expected to grow, we focused on new applications and acquisitions of patents that support our Growth Strategy. The total number of patents owned and the number of patents acquired have decreased compared to those of fiscal 2020.

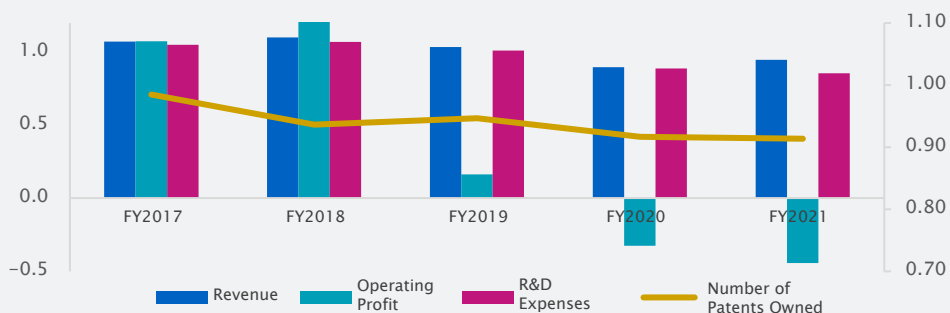


Fig. 10 Key data trends

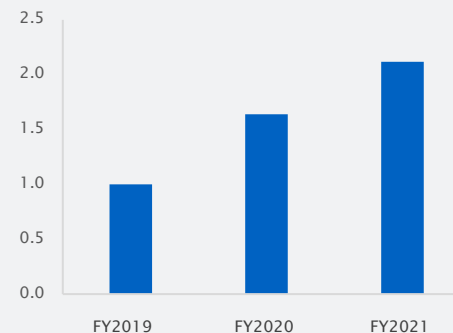


Fig. 11 Trends in index* for filings filed in FY2017 or later with FY2019 as 1

For the patents filed after fiscal 2017, when the "Intellectual Property Strategy 2017-2022" was implemented, the index* obtained by digitizing the degree of attention to such patents has been increasing year by year, and the value of the portfolio of the patents has been improving (Fig. 11). We will continue to evaluate the value of intellectual property and build patent portfolios which contribute to our businesses.

*The value obtained by dividing the right holder score provided by Patent Result Co., Ltd.'s "Biz Cruncher" by the number of active patents.

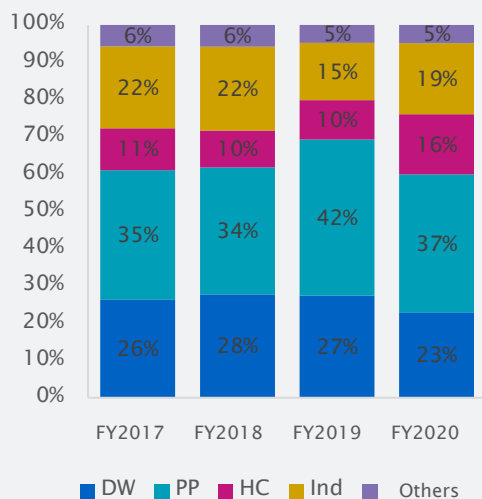
Data Highlights

Transformation of Intellectual Property Portfolios

For the Industry Business, the Healthcare Business, and the Professional Printing Business which are expanding toward growth in the "measurement, inspection, and diagnosis" fields, the allocation of intellectual property investment has increased, and the ratio of the same business in our patent portfolio has expanded (Fig. 12).

Imaging AI for "human behavior, advanced medicine, and product testing"* is our strong area of imaging IoT technology which supports business growth. In this area, the number of patent applications has increased by 38 points compared to that of the calendar year 2020 (Fig. 13).

* For related information :
Imaging IoT technology
<https://research.konicaminolta.com/en/technology/overview/>



*Ratios may change due to reorganization and portfolio restructuring between business divisions, including past figures.

Fig. 12 Component ratio of patent applications by business segment

Patent portfolio related to Imaging AI (indexed on CY2016 as 1)

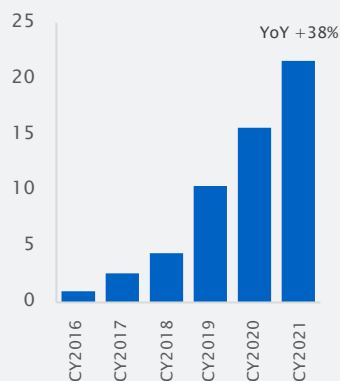


Fig. 13 Changes in the number of patent applications related to Imaging AI

Outside Evaluations of FY2021

<Election to Clarivate Top 100 Global Innovators 2022>

Konica Minolta was elected as one of the "Clarivate Top100 Global Innovator 2022" by Clarivate Plc, a UK-based company providing Information services on a global basis. The top 100 innovative companies and organizations in the world are elected based on data held by Clarivate concerning intellectual property and patents, from among companies and organizations which have filed more than 500 patent applications since 2000 and have obtained more than 100 registered patents in the last 5 years, evaluating by 4 factors—influence, success, globalization, and technical distinctiveness. It seems that our patent portfolio was evaluated as a valuable intellectual property which creates innovation, leading to this election.



* For details: <https://www.konicaminolta.com/global-en/newsroom/2022/0316-01-01.html>

<Election to a good example of descriptive information disclosure>

The Japanese Financial Services Agency has been releasing good examples of information disclosure in securities reports of corporations to encourage sufficient information disclosure which promote a constructive dialogue with investors. Our disclosure about business risk has been introduced in the "Collection of Good Examples of Descriptive Information Disclosure 2021" issued on February 4, 2022. It was evaluated that our securities report was specifically mentioning, with respect to possible risk concerning intellectual property rights, not only use of our intellectual property rights by third-parties and infringement of third-party intellectual property rights, but also promotion of SDGs and countermeasures against COVID-19.

* For details (External link, only in Japanese): <https://www.fsa.go.jp/news/r3/singi/20220204.html>

<Received encouragement prize for invention>

At the Local Commendations for Invention of fiscal 2021 by Japanese Institute of Invention and Innovation, the Encouragement Prize for Invention was awarded for our Japanese Patent No. 6428621 (Invention Title: Optical Film for Liquid Crystal Display Device Resistant to Humidity Variation) and our employee was recognized as the inventor who created an excellent and highly effective technology.

* For details (External link, only in Japanese): http://koueki.jiil.or.jp/hyosho/chi hatsu/R3/jusho_kanto/index.html

Terminology

- **Intellectual Property Mix Strategy**

Intellectual property strategy that actively utilizes the strengths of intellectual property (e.g., know-how) and intellectual property rights (e.g., patent rights, design rights and trademark rights) in a complex and organic manner to provide multifaceted protection to the company's own products and services.

- **Business segment**

Business Segments	● Field	· Unit
Digital Workplace (DW)	<ul style="list-style-type: none"> · Office (OP) · IT service solutions, Workplace Hub (DW-DX) 	
Professional Print (PP)	<ul style="list-style-type: none"> · Production print (PP) · Industrial print (IP) · Marketing services (MS) 	
Healthcare (HC)	<ul style="list-style-type: none"> · Healthcare (HC) · Precision medicine (APM) 	
Industry (Ind)	<ul style="list-style-type: none"> ● Materials and components (M&C) 	<ul style="list-style-type: none"> · Performance materials (PM) · Inkjet components (IJ) · Optical components (OC)
	<ul style="list-style-type: none"> ● Sensing (SE) 	<ul style="list-style-type: none"> · Measuring instruments (MI)
	<ul style="list-style-type: none"> ● Imaging-IoT solutions (IIS) 	<ul style="list-style-type: none"> · Imaging-IoT solutions (IIS) · Visual solutions (VS)

- **Application · Acquisition of right**

Securing intellectual property rights (e.g., patent rights and design rights) based on or stemming from intellectual property (e.g., inventions and designs) by filing an application with the Patent Offices in Japan or overseas. It is important for an applicant not only to satisfy statutory requirements and examination guidelines for the rights, but also to design such rights which can cover his/her own products and block competitors.

- **Freedom-to-operate search**

A search to check whether products and services are free from infringement on third-party intellectual property rights, conducted prior to their market launch.

- **Right Holder Score**

An index on Patent Result Co., Ltd.'s "Biz Cruncher" which indicates the comprehensive strength of a patent rights holder (corporation), obtained by calculating patent scores that represent the degree of attention to a patent and totaling such scores of 50 points or more for each corporation. The reason for using the patent scores with 50 points or more is to prevent the right holder score from increasing due to the large number of patents with a low patent score.

- **Number of active patent**

An index on Patent Result Co., Ltd.'s "Biz Cruncher" which indicates the number of patents, whose status is "Registered," "Under Examination," or "Filed."



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