

INTELLECTUAL PROPERTY

December 12, 2023

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General Manager,

Intellectual Property Division



My name is Motohiro Makino, and I work in the Intellectual Property Division. I would like to explain the intellectual property strategy that underpins our efforts to strengthen business profitability through selection and concentration, one of the basic policies under Konica Minolta's Medium-term Business Plan.

1. INTELLECTUAL PROPERTY AND INTELLECTUAL PROPERTY ACTIVITIES



Before getting into the specifics of our intellectual property strategy, I will begin by introducing Konica Minolta's intellectual property and intellectual property activities.

1. Intellectual Property and Intellectual Property Activities | Konica Minolta's Intellectual Property



150
YEARS

Number of Patent Rights Owned

Nearly **20,000**
Domestic and overseas in total

In Japan **19th ***
In US **32nd ***
Ranked
among Japanese corporations

*According to our research

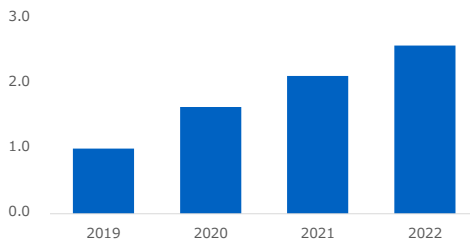
Outside Evaluations for Intellectual Property

Clarivate Top 100
Global Innovator for the
second consecutive year

Evaluating excellence in view of "Influence",
"Success", "Globalization" and "Rarity"
Recognizing top 100 Global innovative
companies and organizations from the evaluation

Trends in Patent Value *

Trends in index with FY2019 as 1



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



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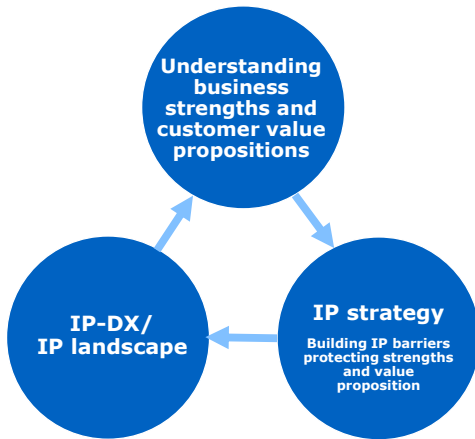
Patents are the most prominent of intellectual property rights. We hold about 20,000 patents domestically and overseas. Among Japanese corporations, this makes us the 19th largest patent holder in Japan and the 32nd-largest patent holder in the United States. Our patent portfolio is very large in terms of the scale of our revenue and total assets, and you can see from this that we are a company that expands its businesses by creating technology-based value.

We focus not only on increasing the number of patents we hold but also on their quality. The graph on the bottom left of the slide shows the average value per patent held by Konica Minolta in terms of our patent owner score, which is an objective evaluation of the quality of patents provided by a commercial patent analysis tool. As you can see, this score is increasing year by year.

We have also received external recognition for the quality of our patents. Clarivate, a global information services company from the United Kingdom, has selected Konica Minolta as a Top 100 Global Innovator – one of the 100 most innovative companies around the world based on Clarivate's intellectual property data – for two consecutive years: 2022 and 2023. Of the four elements shown on the slide, we received an especially outstanding score for "Rarity," which indicates the breadth of the applicable scope of technologies.

1. Intellectual Property and Intellectual Property Activities | Konica Minolta's Intellectual Property

Model of Intellectual Property Activities



Outside Evaluations for Intellectual Property Activities



Receiving Award
 Heisei year 30th, Commissioner of the Japan Patent Office Awards in Intellectual Property Achievement Awards

- Reason for receiving the award**
- Cross-functional IP activities for business
 - IP strategy discussion with business leaders
 - New products utilizing core technologies
 - Contribution for creating new business

Quote: https://www.jpo.go.jp/news/koho/tizai_koro/document/h30_tizai_kouro/panel_210.pdf

Introduction of our IP strategy



At IP Strategy for Successful Management Strategy (practical cases) published by Japanese patent office, 2020

Quote: https://www.jpo.go.jp/support/exam/ple/document/chizai_senryaku_2020/all.pdf

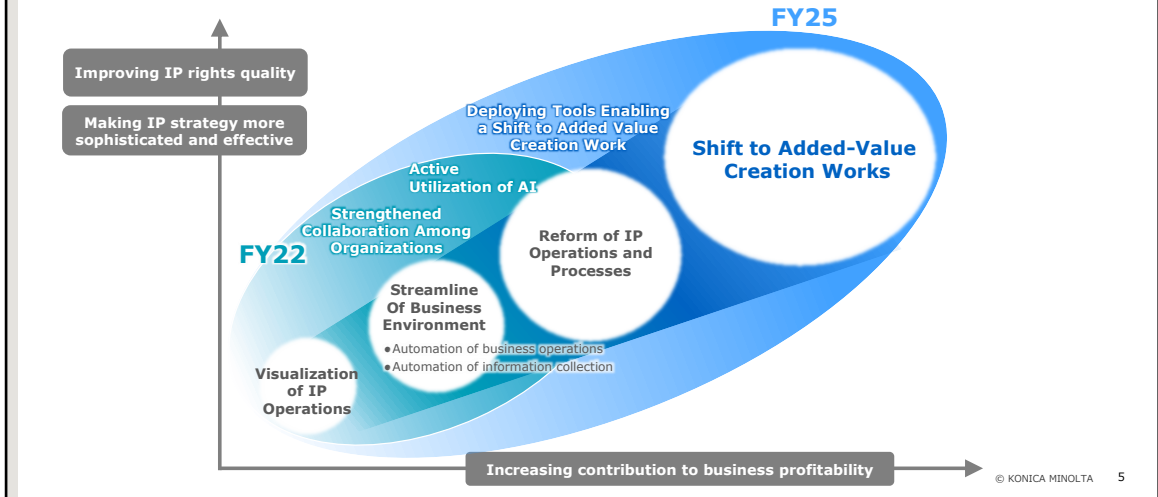
Next, I would like to explain the features of Konica Minolta's intellectual property activities aimed at the creation of this intellectual property. Our intellectual property activities are notable for the fact that we formulate and implement our IP strategy to enhance the competitive advantages of our strengths and value provided through patents and other intellectual property. This is based on a deep understanding not only of the technology but also of our business strengths, including various intangible and tangible assets, and the value we provide to customers through these strengths. We also focus on IP-DX and the IP landscape to boost the productivity and effectiveness of our intellectual property activities, including the identification of these strengths and value and the formulation of IP strategy. We have gained external recognition for these intellectual property activities, too. For example, we received an award in the Intellectual Property Achievement Awards organized by the Ministry of Economy, Trade and Industry (METI) and the Japan Patent Office, and our intellectual property activities were featured in a collection of practical cases of IP strategy published by the Japan Patent Office.

1. Intellectual Property and Intellectual Property Activities | DX of Intellectual Property Activities



150
YEARS

Vision and plan of IP-DX for supporting intellectual property activities

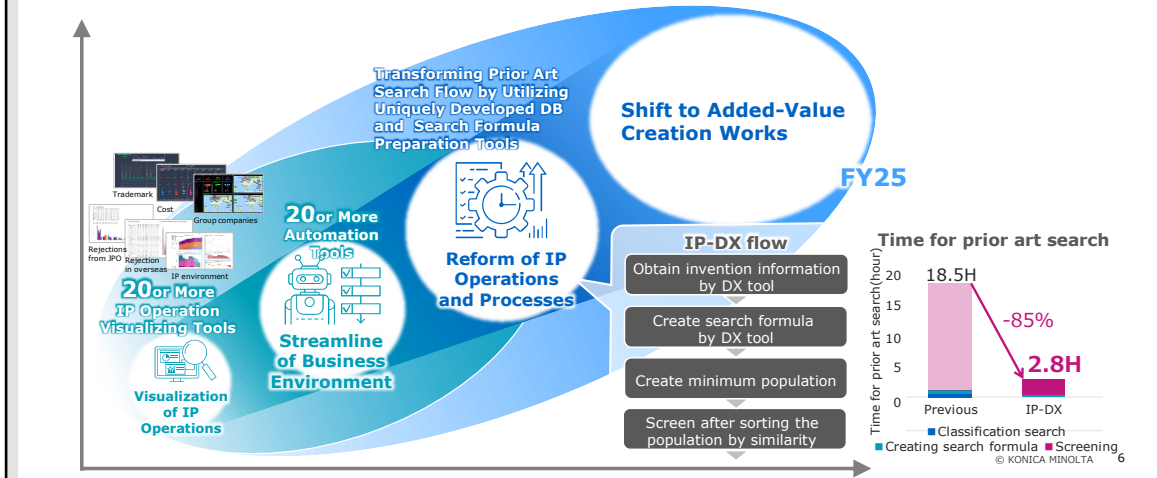


This slide shows our DX of intellectual property activities.

The figure represents our IP-DX vision and plan. We will leverage DX tools to progressively achieve the visualization of IP operations, the automation of business operations and information collection, and the reform of IP operations and processes. Through the resulting boost in efficiency and operational reforms, we aim to shift further to added-value creation works and enhance both the quality and financial value of our intellectual property rights.

1. Intellectual Property and Intellectual Property Activities | DX of Intellectual Property Activities Achievements of IP-DX

Realizing intellectual property activities efficiency (more than 4,000 hours) by uniquely developed tools

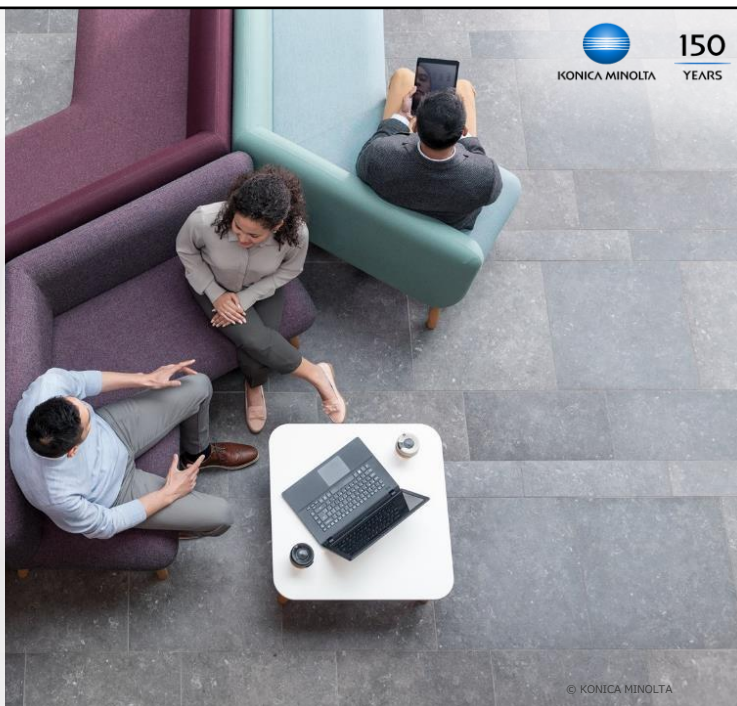


This slide shows our IP-DX achievements so far. We have developed 40 or more unique DX tools for the visualization of IP operations and streamlining of the business environment. These have enabled us to reform our IP operations and processes. For example, we have achieved the digital transformation of workflows for prior art searches, essential for patent applications, through a combination of unique corporate and departmental invention information databases and unique tools that enable intuitive documentary patent searches. This has resulted in a reduction of approximately 85% in the time required for prior art searches compared to previous workflows. Through these efficiency improvements and process reforms, we have so far achieved cumulative savings of 4,000 hours or more. Over and above this greater efficiency, we are continuing to create environments that enable our employees to concentrate their efforts on value-added works with higher intellectual productivity.

2. IP STRATEGY FOR PROMOTING MEDIUM-TERM BUSINESS PLAN



150
YEARS



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Next, I would like to explain our IP strategy for promoting the Medium-term Business Plan.

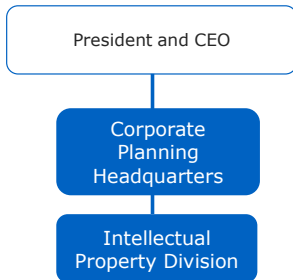
2. IP Strategy for Promoting Medium-term Business Plan |



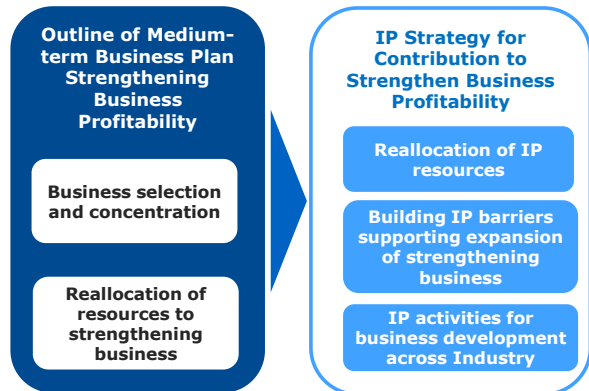
150
YEARS

Intellectual Property Management Structure for Promoting Medium-term Business Plan

Directly linked to management strategy under Corporate planning headquarters



IP Strategy for Promoting Medium-term Business Plan



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The figure on the left of the slide shows our intellectual property management structure for promoting the Medium-term Business Plan. We established the new Corporate Planning Headquarters in April this year and, by placing the Intellectual Property Division under its umbrella, we strengthened the management structure to enable the formulation and implementation of IP strategy directly linked to management strategy.

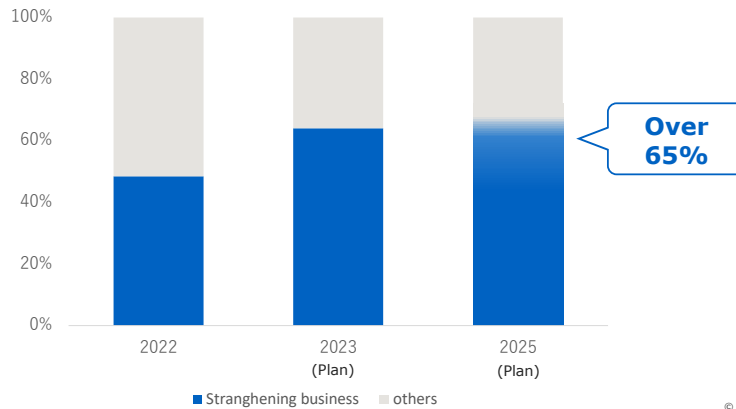
The figure on the right shows the correspondence between the Medium-term Business Plan and our IP strategy. Of the basic policies of the Medium-term Business Plan, our IP strategy will focus on promoting and achieving stronger business profitability through business selection and concentration.

Today, I would like to explain three aspects of our IP strategy: the reallocation of IP resources, building IP barriers supporting the expansion of strengthening business, and IP activities for business development across Industry Business.

2. IP Strategy for Promoting Medium-term Business Plan |

Reallocation of IP resources

Select and concentrate on IP investments, and increase the ratio of patent applications in strengthening businesses to **more than 65%** by FY2025



To begin with, I will explain the reallocation of IP resources.

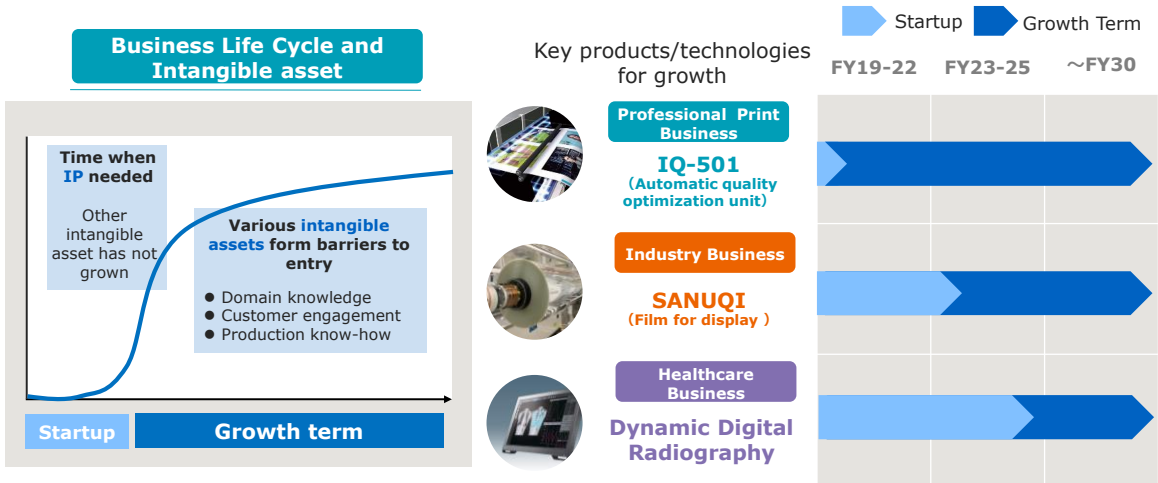
At Konica Minolta, we pursue intellectual property activities based on an understanding that intellectual property creation and rights formation are forms of investment in business growth and stronger profitability. In this context, we pursue the selection and concentration of IP investments to further promote the expansion of strengthening businesses through business selection and concentration.

Specifically, from this fiscal year, we have significantly raised the ratio of companywide patent applications in our strengthening businesses: the Professional Print Business, Industry Business, and Healthcare Business. We plan to further increase this percentage to over 65% by fiscal 2025. Among other things, this shift will accelerate our efforts to build IP barriers supporting the expansion of strengthening businesses, which I will explain on the next slide. At the same time, it will contribute to protecting our revenue in the Office Business by raising ROI, enabling us to gain the maximum effect from efficient investments.

2. IP Strategy for Promoting Medium-term Business Plan |

Building IP barriers supporting expansion of strengthening business

Build barriers with intellectual property in key products, and support business growth



I will now proceed to explain our efforts to build IP barriers supporting the expansion of strengthening businesses.

The figure on the left presents a schematic representation of the relationship between the business growth curve and barriers to entry through intellectual property and other intangible and tangible assets. The business strengths that are the source of competitive advantage are composed not only of technology and intellectual property but also relationships with customers, organizational structure, production know-how, and other intangible assets, as well as tangible assets such as production equipment. However, for businesses and products that create new markets, in particular, it takes a substantial time before intangible assets such as relationships with customers and production know-how are strong enough to constitute barriers to entry.

Normally, entry by competitors becomes more vigorous when business or product startup transitions into the expansion and growth stage. However, this intellectual property is not always fully formed when this occurs. At this stage, by establishing barriers that inhibit the entry of competitors, such as patent rights – exclusive monopoly rights based on the strength of the law – we can ensure the expansion and growth of the business.

The figure on the right shows a general overview of the approximate startup and growth terms of key products and services for business expansion in each of Konica Minolta’s strengthening businesses. I will next proceed to use examples to explain how we build IP barriers in each of these products and services.

2. IP Strategy for Promoting Medium-term Business Plan |

Building IP barriers supporting expansion of strengthening business

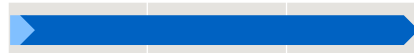
Professional Print Business

Established the intellectual property barriers to block the entry for the new value of **automation, labor-saving, and skill-less printing** at the printing site. Contribute to business by maintaining price control over a long period of time.

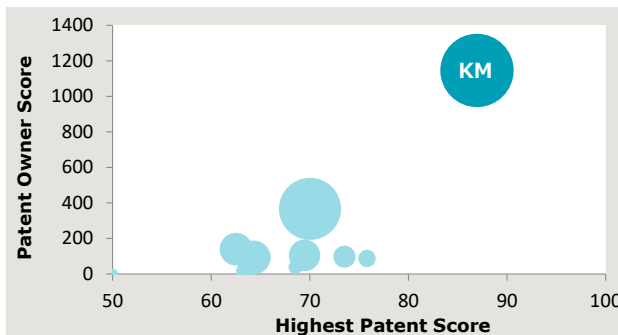


IQ-501
(Automatic quality optimization unit)

FY19-22 FY23-25 ~FY30



Start-up Growth Term



Japanese patent score map for focus areas

Created by Konica Minolta using Patent Results Co., Ltd.'s patent analysis tool "Biz Cruncher". The size of the circle indicates the number of patents for each company, the horizontal axis indicates the evaluation value of the patent with the highest patent score, and the vertical axis indicates the evaluation value of the entire patent portfolio.

First, I would like to talk about the automatic quality optimization unit that performed an important role in expanding and growing the Professional Print Business.

The automatic quality optimization unit was released in 2017 under the product name IQ-501. By achieving the high-quality automation of processes such as color adjustment and front-back alignment for printed materials, which had previously relied on the manual work of veteran workers, we provided new value to printing sites in the form of automation, labor-saving, and skill-less printing, opening up new markets.

We made concentrated patent applications for the various technologies that made this automatic quality optimization function possible, right from the stage of elemental technology development. This graph shows the quantity and quality of patents related to the automatic quality optimization function filed by Konica Minolta and other companies. These are calculated objectively using a commercial patent analysis tool. The size of the circles indicates the number of patents filed by each company, the vertical axis indicates the value of the entire group of patents held in terms of the patent owner score I just mentioned, and the horizontal axis indicates the value of the patent with the highest score in the patent group. In other words, the larger the circle, the larger the scale of the patent group, and the further toward the top right it is, the greater the quality. As you can see, Konica Minolta's patent group overwhelms others in terms of both quantity and quality. This powerful IP barrier inhibits the entry of competitors for a long period of time, contributing to our ability to maintain price dominance.

2. IP Strategy for Promoting Medium-term Business Plan |

Building IP barriers supporting expansion of strengthening business

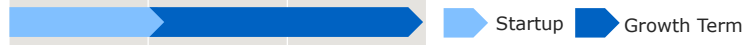
Industry Business

Established the intellectual property barrier by concentrating on filing patent applications for the "solvent-casting + belt" method of film production, which realizes the value of **thin films, imparting diverse functions, and application to wide width film**.
Supports expanding market share in the large display area.

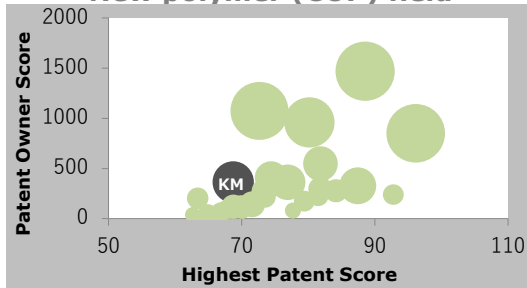


SANUQI
(Film for display)

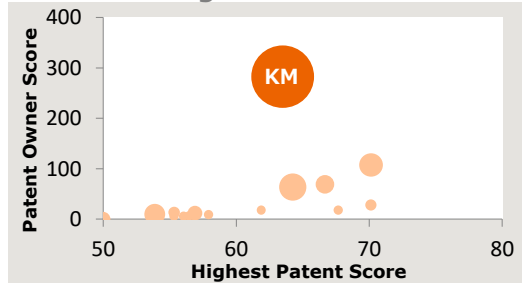
FY19-22 FY23-25 ~FY30



New polymer (COP) field



"Solvent-casting + belt method" field



Next, I would like to talk about SANUQI films, which are key to the expansion of market share in the large display area. This is our growth strategy in the performance materials business, one of the cores of the Industry Business. In the large display market, polarizing plate manufacturers are speeding up their shift to wide-width lines to efficiently target various different display sizes. Likewise, for the functional film used in polarizing plates, responding to this shift to wide width lines is key to expanding market share. Despite being a relative newcomer among COP films, SANUQI is produced using the "solvent-casting + belt" method, giving it the technological advantage of customizability through ultrathin manufacturing and diverse functions. In addition, the subsequent stretching process gives it the feature of flexible compatibility with wide-width lines. These value propositions have enabled us to capture customer needs and expand our market share. As the graph on the left illustrates, Konica Minolta does not have a competitive advantage in the overall COP field, even in terms of patents. However, the graph on the right shows how we have made patent applications focused on film manufacturing using the "solvent-casting + belt" method that realizes the SANUQI value proposition, building an IP barrier and effectively blocking the entry of competitors through the value provided by SANUQI.

2. IP Strategy for Promoting Medium-term Business Plan |

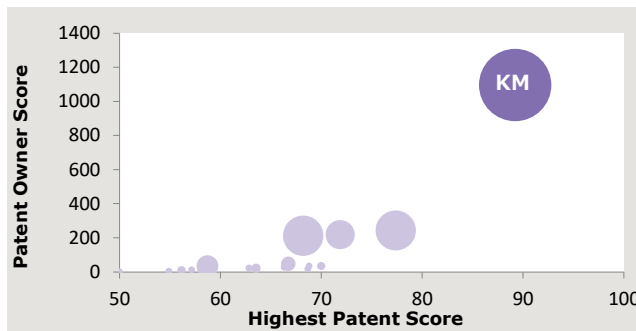
Building IP barriers supporting expansion of strengthening business

Healthcare business

Intellectual property barriers have been established for **Dynamic Digital Radiography technology** that enables new diagnosis through observation and quantification of the "movement" and "function" of organs. We will continue to strengthen our business further and contribute to business expansion.



Dynamic Digital Radiography



The last example of IP barrier-building that I will present today is Konica Minolta's unique Dynamic Digital Radiography (DDR), which is the key to our growth and expansion in the Healthcare Business.

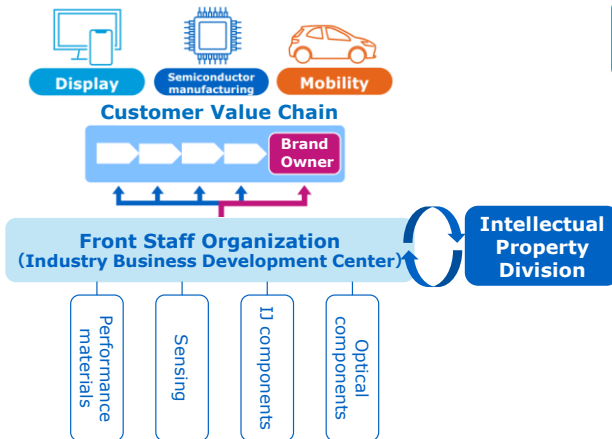
By using Konica Minolta's unique image processing technology for dynamic image analysis, DDR enables the visualization of blood flow and the movement of tissues using normal X-ray equipment. This advances X-ray diagnosis from morphological diagnosis that examines the shape of internal tissues to functional diagnosis that examines their function, giving clinical diagnosis entirely new value. We aim to make this the new standard for X-ray image diagnosis and develop the business to generate high revenue over the long term.

DDR is transitioning from a startup to a growth business. Just as in the case of IQ-501, we have focused on making patent applications right from the stage of elemental technology development, and we have already built a robust IP barrier, as you can see. We have also launched sales of a mobile X-ray system that enables bedside DDR, and we have focused on applying for patents and swiftly establishing our rights for this new value proposition. We are continuing to strengthen our IP barrier to contribute to business growth and expansion.

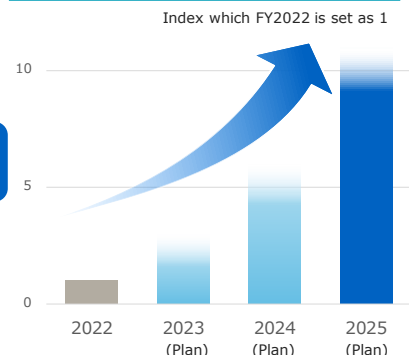
2. IP Strategy for Promoting Medium-term Business Plan |

IP activities for business development across Industry

Working closely with the front staff organization, we quickly convert new value across industry business units to be proposed to brand owners as intellectual property.



Planned Patent Application Number across Industry Business



Next, I would like to explain our IP activities for business development across the Industry Business, aimed at business expansion.

At Konica Minolta, we aim to expand the Industry Business by shifting our business promotion from a business unit and product basis to a customer and industry basis and by prioritizing the allocation of resources to focus areas. To this end, we established the Industry Business Development Center, a front staff organization, in April this year. Front staff make direct contact with the brand owners in the value chain, investigate the substance of the issues they face, and leverage Konica Minolta's technology assets to make value propositions that transcend the conventional business. This enables business development across Industry Business and drives medium- and long-term growth in our focus areas. Right at the start, I mentioned the outside evaluations we have received for the broad scope of application of Konica Minolta's patented technologies. We believe that this characteristic comes into its own here.

The Industry Business Development Center coordinates closely with the Intellectual Property Division. When the front staff have grasped the problems faced by brand owners and others and perceive some potential, they immediately share information with the Intellectual Property Division, including the content of the value proposal. The Intellectual Property Division promptly investigates and analyzes the status of past patent applications and content that should be made the subject of patent applications in terms of technology assets and specific solutions based on these assets that form the foundation for the value proposal. It immediately commences patent applications and rights acquisition activities. In this way, our IP activities will also support business development across the Industry Business.

As a quantitative target for these activities, by fiscal 2025, we plan to expand the number of patent applications based on business development across the Industry

Business by around 10 times compared to fiscal 2022.

3. FINALLY



That is all for today's briefing. To conclude, I would like to present a small advertisement.

3. Finally

Our company has published and delivered the "Intellectual Property Report" every year since 2004, and this year marks the 20th anniversary. Please check it as well.



FY2023 Japanese Ver. Published on December 11, 2023
(English ver. will follow in early next year)

https://www.konicaminolta.com/jp-ja/investors/ir_library/intellectual_property/index.html

Konica Minolta has published and delivered the “Intellectual Property Report” every year since 2004, and this year marks the 20th anniversary. The edition for this fiscal year was posted online just yesterday. It provides more detailed information on the topics covered today, so please read it if you have time.



KONICA MINOLTA

150

YEARS

That is all from me. Thank you for your attention.