KONICA MINOLTA Integrated Report 2021

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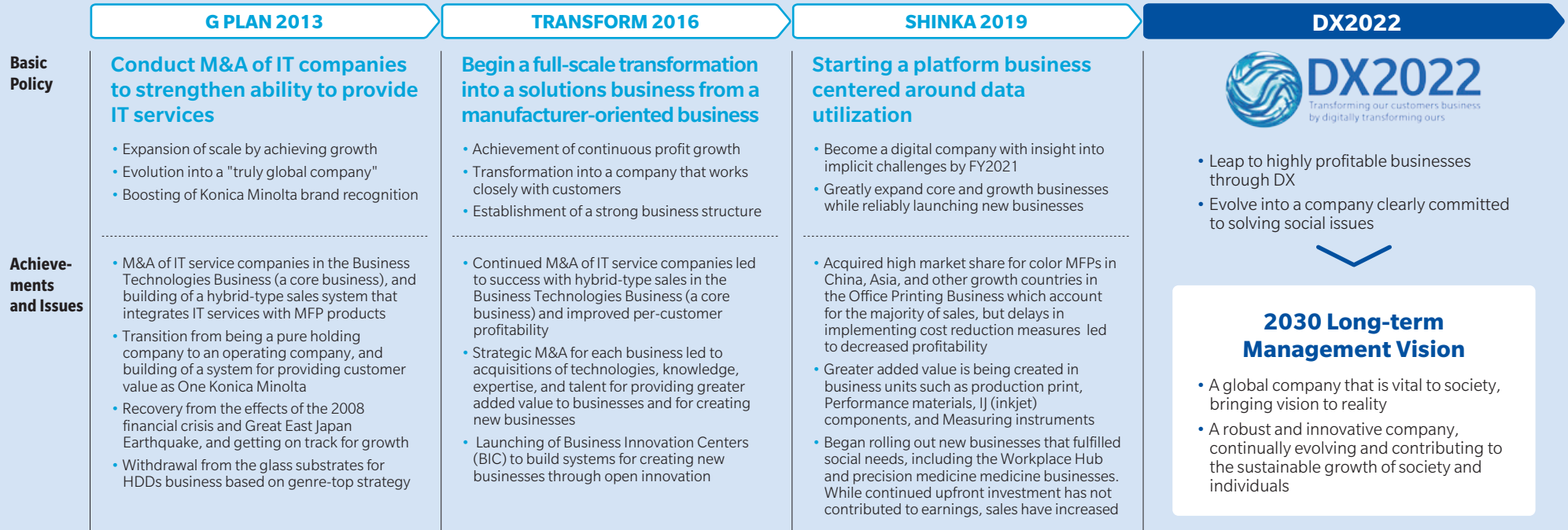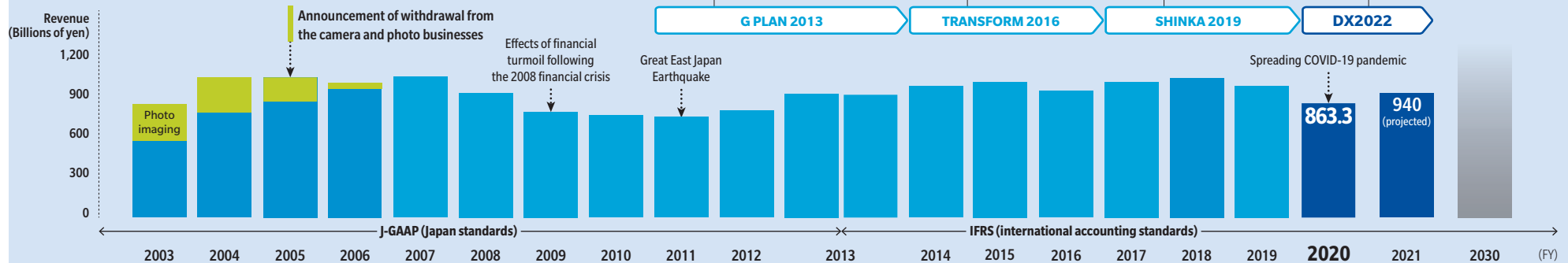
Medium- to Long-term Value Creation Strategy

Transforming our business portfolio through DX

Our Changing Medium-term Business Plan

	G PLAN 2013	TRANSFORM 2016	SHINKA 2019	DX2022

Basic Policy

G PLAN 2013: Conduct M&A of IT companies to strengthen ability to provide IT services

- Expansion of scale by achieving growth
- Evolution into a "truly global company"
- Boosting of Konica Minolta brand recognition

TRANSFORM 2016: Begin a full-scale transformation into a solutions business from a manufacturer-oriented business

- Achievement of continuous profit growth
- Transformation into a company that works closely with customers
- Establishment of a strong business structure

SHINKA 2019: Starting a platform business centered around data utilization

- Become a digital company with insight into implicit challenges by FY2021
- Greatly expand core and growth businesses while reliably launching new businesses

DX2022

- Leap to highly profitable businesses through DX
- Evolve into a company clearly committed to solving social issues

Achievements and Issues

G PLAN 2013:
- M&A of IT service companies in the Business Technologies Business (a core business), and building of a hybrid-type sales system that integrates IT services with MFP products
- Transition from being a pure holding company to an operating company, and building of a system for providing customer value as One Konica Minolta
- Recovery from the effects of the 2008 financial crisis and Great East Japan Earthquake, and getting on track for growth
- Withdrawal from the glass substrates for HDDs business based on genre-top strategy

TRANSFORM 2016:
- Continued M&A of IT service companies led to success with hybrid-type sales in the Business Technologies Business (a core business) and improved per-customer profitability
- Strategic M&A for each business led to acquisitions of technologies, knowledge, expertise, and talent for providing greater added value to businesses and for creating new businesses
- Launching of Business Innovation Centers (BIC) to build systems for creating new businesses through open innovation

SHINKA 2019:
- Acquired high market share for color MFPs in China, Asia, and other growth countries in the Office Printing Business which account for the majority of sales, but delays in implementing cost reduction measures led to decreased profitability
- Greater added value is being created in business units such as production print, Performance materials, IJ (inkjet) components, and Measuring instruments
- Began rolling out new businesses that fulfilled social needs, including the Workplace Hub and precision medicine medicine businesses. While continued upfront investment has not contributed to earnings, sales have increased

2030 Long-term Management Vision

- A global company that is vital to society, bringing vision to reality
- A robust and innovative company, continually evolving and contributing to the sustainable growth of society and individuals

Sales over time

Revenue (Billions of yen)

G PLAN 2013	TRANSFORM 2016	SHINKA 2019	DX2022

Announcement of withdrawal from the camera and photo businesses

Effects of financial turmoil following the 2008 financial crisis

Great East Japan Earthquake

Spreading COVID-19 pandemic

Photo imaging

863.3

940 (projected)

J-GAAP (Japan standards) ←→ IFRS (international accounting standards)

2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 **2020** 2021 2030 (FY)

1,200 / 900 / 600 / 300 / 0

Message from the CEO

As I promote management based on the conviction that we have no future without the completion of our business portfolio transformations, we will achieve profit diversification and a business structure that enables sustainable growth via bold shifting and reinforcement of management resources.

Shoei Yamana
President and CEO, Representative Executive Officer

Redefining the risks and opportunities facing our company as society is dramatically changed by COVID-19

COVID-19 has had a major impact on societies and economies around the world, greatly accelerating changes to our values and the way we work and live, and has had a great impact on the business of the Konica Minolta Group. This year has seen the Group face many new risks and opportunities due to such changes to society and human behavior.

Such risks include an acceleration in the decline of print volumes due to the reduced numbers of employees commuting to an office caused by the expansion and normalization of working from home. This is a structural change that we were expecting to happen gradually, but COVID-19 has certainly accelerated such

Message from the CEO

change. In anticipation of the shift to reduced print volumes, we have been seeking to transform our Office Printing Business to solutions and IT services for a long while now. Although the cancelation of events and closing of stores has led to a drastic decline in demand for commercial printing, this is a temporary phenomenon caused by COVID-19, and after the pandemic subsides, I expect demand to recover, particularly for the digital printing provided by the Company.

On the other hand, COVID-19 has accelerated behavioral changes in the way we live and work, which can be expressed by keywords such as individualization/ decentralization and remote/non-contact services, and has led to demand for safety, security, and health. I believe that such changes to society provide us with a new business opportunity. For example, the popularization of working from home has increased the importance of information security. This has led to various customers asking us for proposals on workflow reforms that utilize the advanced security technologies and digitalization of the Company, and our solutions have been well received. Various workplaces have also been investigating methods for avoiding infection and ensuring social distancing, and this has led to many inquiries about projects such as temperature screening services via image diagnosis, remote medical care at hospitals, and services for automating the inspection process at factories. With COVID-19 also increasing consumer interest in health, I feel that demand for services that support personalized medical care and early diagnosis will certainly grow.

Completing the two portfolio transformations essential to achieving long-term growth

In order for the Company to achieve sustainable growth and enhanced corporate value, we must make sure to implement business structure reforms from the perspective of these risks and opportunities. That is the most important challenge that I face as CEO. We have been promoting the three-year DX2022 medium-term business plan since fiscal 2020, and the fundamental objectives of DX2022 are to "leap to highly profitable businesses through DX" and to "evolve into a company

clearly committeed to solving social issues." In order to achieve these objectives, I have resolved to complete two portfolio transformations.

The first such transformation is to shift our Office Printing Business, which focused on MFPs, to the Digital Workplace Business. COVID-19 has led to a change from employees concentrated at an office to decentralized work via working from home. Companies now have a pressing need to maintain information security and ensure efficient workflows. Workplace Hub is a solution that links cloud computing with edge commuting to provide new information security measures, and has the ability to respond to such requirements in detail. There is also a shift toward digitalizing the workflows for paper-based application and approval at companies, government, and local municipalities, and we will proactively approach such document digitalization needs with security technologies. We have already been deploying managed IT services to markets in Europe and North America in order provide centralized management of IT infrastructure at small and medium-sized companies, and we will further strengthen this business. In short, we will robustly promote our goal of creating advantages for the Company via security.

The second transformation is a company-wide business portfolio transformation to reduce our dependence on the Office Printing Business, which currently accounts for about half of our revenue, and accelerate growth in our Industry Business and Healthcare Business. In regard to sensing in the Industry Business, we have established the top position in the world in the field of measuring instruments for displays. By utilizing this strength, we will further expand our business in the area of displays, and expand our business into new areas other than displays, such as visual inspections for automobiles and component inspection for food and pharmaceuticals. In the field of imaging IoT, we have established technologies for detecting and analyzing behavior based on the intelligent edge processing cameras of German company MOBOTIX. We will combine these AI (artificial intelligence) network cameras, sensing devices, and analysis software to provide a new platform called FORXAI. By linking with the technologies and products of various business partners, we will meet the needs for safety/security and non-contact services/labor saving at various worksites, including monitoring at plants, warehouses, and logistics areas, as well as thermal cameras for the automatic measurement of body temperature combined with

Message from the CEO

facial recognition and services for watching the elderly at nursing facilities.

In the Healthcare Business, we will aim for further growth in the field of early diagnosis, which we excel in. Our digital X-ray diagnostic imaging systems have evolved from still images to the real-time capturing of video, and that video can now be combined with AI dynamic analysis to support more accurate interpretation and diagnosis by doctors. These cutting-edge Konica Minolta technologies are well-received at medical sites, and contribute to achieving early diagnosis and reducing workloads. In the field of precision medicine, our United States subsidiary Ambry Genetics has advanced technology in the area of genetic testing, and Invicro in the field of image diagnosis. We will utilize these strengths to provide genetic testing services for healthy people, as well as pharmaceutical development support services. We will also start providing the LATTICE multi-omics platform that integrates the gene and diagnosis image data that we have accumulated. These efforts will enable us to contribute to quality of life (QOL) improvement with early diagnosis and early treatment via various approaches.

Starting to rebuild our management system in order to accelerate the speed of executing transformations

We have set the ultimate goal of these two transformations for fiscal year 2025, but to ensure that a certain level of results have been achieved by 2022, the final fiscal year of our DX2022 medium-term business plan, we will dramatically shift our management resources such as our R&D and human resources to these growth areas. On the other hand, we recognize that our failure to increase the speed of these transformations during the previous medium-term management plan is a major issue, and will also promote drastic reforms of our management system. Therefore, over the past few months, I myself have identified issues via a thorough examination of our management system, and am currently working on restructuring the Company in a manner that can solve those issues.

One key point of management reforms is speeding up decision-making and actions via the adoption of the OODA (Observe-Orient-Decide-Act) loop. Rather than carefully planning before executing initiatives in an unpredictable business environment subject to drastic change, the OODA loop should enable us to get closer to achieving our goals by clarifying what we want to achieve, determining the best course of action based on the information at the time, and immediately taking action. In order to effectively operate this new decision-making framework, we are currently investigating a method for collecting and analyzing reports from various business sites and reviewing our framework for conducting meetings and making decisions. At the same time, we recognize that department autonomy is extremely important for speedy decision-making, and have adopted a policy of proactively delegating authority closer to business sites in the future.

Of course, efforts to further strengthen digital transformation (DX) are also essential for accelerating the two transformations. We are promoting DX from two perspectives: "Business DX", which maximizes the value provided to customers by digitally evolving businesses, and "Operational DX", which aims to improve all of our operations across the entire company. Business DX overlooks customer business processes to visualize issues that the customer themselves may not have realized, in order to derive optimal solutions together with the customer and assist business process and business model reforms. In addition to combining AI and IoT

Message from the CEO

with the imaging technologies that form the basis of our strength, we plan to build a platform that will enable us to link with the technologies and services of various partners, and provide solutions to a wide range of customers. On the other hand, operational DX will involve efforts such as expanding the digital manufacturing built at our Malaysia factory to other factories, achieving high-precision forecasting by utilizing AI at SCM, and optimizing the maintenance services provided to our customers in the field.

Placing sustainability at the foundation of management strategy to improve our medium to long-term corporate value
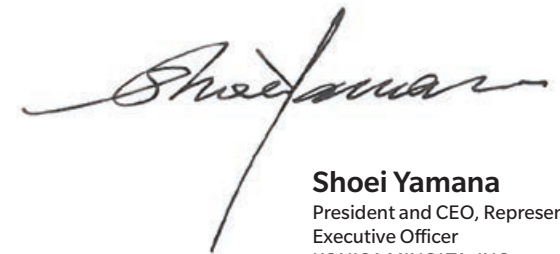
To formulate DX2022, we held deep discussions on what we want society to be like a decade from now in the year 2030, and what environmental/social issues we will need to solve in order to achieve that vision. As the world moves toward an autonomous distributed society that develops sustainably, we have redefined our purpose as contributing to "Support people to achieve their own purpose" and "Realize a sustainable society."

This is the stance that has been at the foundation of our management strategy since the merger between Konica and Minolta in 2003, and since being appointed President, I have focused management based on my belief that contributing to the realization of a sustainable society where everyone can live with a purpose is the only way to achieve the sustainable growth of the Company. This idea has carried over to our employees and we are seeing more and more voluntary initiatives, such as projects for solving social issues that were proposed and started by young employees. I find it extremely encouraging that we have such human resources that truly want to improve the world.

In fiscal 2020, we clarified our five material issues for contributing to solving social issues via our business activities as "Improving fulfillment in work and corporate dynamism," "Supporting healthy, high-quality living," "Ensuring social safety and security," "Addressing climate change," and "Using limited resources effectively." In regard to climate change in particular, we have worked toward

long-term goals since establishing the Eco Vision 2050 long-term environment plan in 2009. In fiscal 2020, we pushed forward our timeline for achieving carbon minus status to the ambitious target of 2030. We aim to increase the amount that we can contribute to reducing CO_2 emissions at client companies and business partners compared to our own CO_2 emissions, by sharing our expertise and knowledge on environmental management in order to reduce the environmental impact of the entire value chain. As for material issues not related to the environment, we will continue to quantify the social and economic impact that our business activities have, and set specific KPIs to accelerate our initiatives.

Guided by our philosophy—"The Creation of New Value," we will continue to create environmental/social value and economic value via all kinds of business activities. We will also contribute to a sustainable society as a company clearly committed to solving social issues, while simultaneously improving our medium to long-term corporate value, and I hope for the continued support of all of our stakeholders.
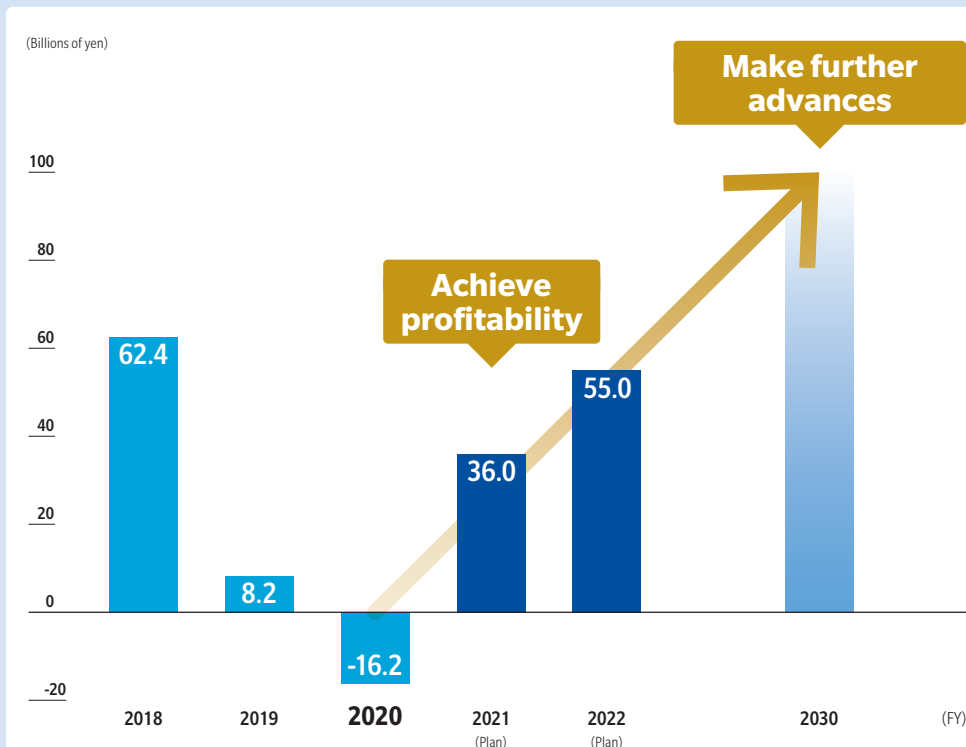
Shoei Yamana
President and CEO, Representative
Executive Officer
KONICA MINOLTA, INC.

Medium-term Business Plan "DX2022"

DX2022
Transforming our customers business
by digitally transforming ours

Our Medium-term Business Plan DX2022, which began in FY2020, calls for quickly restoring the revenue of the Office Printing Business, which has been hit hard by COVID-19 since the outbreak of the virus at the start of 2020, to the level in FY2018 by FY2021. This will involve strengthening the business' position as a cash cow following FY2020 structural reforms, and simultaneously building a business to serve as an earnings pillar that replaces the Office Printing Business by undertaking two portfolio transformations. We will achieve the major management targets of FY2021 and FY2022 while making the necessary investments to complete these business portfolio transformations.

Operating profit plan

(Billions of yen)

- 2018: 62.4
- 2019: 8.2
- 2020: -16.2
- 2021 (Plan): 36.0 — Achieve profitability
- 2022 (Plan): 55.0
- 2030: Make further advances

Main management indicators

	FY2021 (plan)	FY2022 (plan)
Operating profit	¥36 billion	¥55 billion
Operating profit ratio	3.8%	+1 pt or more
Operating cash flows	¥190 billion	
ROIC	2.8%	+1 pt or more

Medium-term Business Plan "DX2022"

Strategy trajectory

External environment awareness

The COVID-19 pandemic has changed people's values and how we work and live

Risk

Declining demand in the office printing field, which accounts for more than 50% of Konica Minolta's revenue

- Accelerating decline in office print volume among customer companies
- Accelerating decline in print volume among centralized reprographic department at customer companies
- Declining hardware sales volume due to decreasing print volume

Opportunities

Increasing business opportunities centered on imaging in areas where social needs are growing

- Working styles continue to change due to DX
- Growing demand for individualized and diversified solutions in various fields
- Growing demand for contactless, distributed, and remote solutions
- Growing demand in the safety, security, and sanitation field

Toward establishing new businesses that follow on the Office Printing Business

Earnings structure reform in the Office Printing Business

- Sales process reform
- After-sales service productivity improvement
- Development expense reduction
- Fixed production costs reduction

Get FY2021 Office Printing Business operating profit back to the FY2018 level

Build businesses to stand as new earnings pillars

Digital Workplace	Workplace Hub and IT services business growth
Professional Print	
Healthcare	Establish business base in measurement, inspection, and diagnosis
Industry	

Business model evolution through DX

Medium-term Business Plan "DX2022"

The ideal business portfolio

Deriving the majority of earnings from the Industry and Healthcare businesses

With the goal of achieving a business portfolio that is not reliant on the Office Printing Business, we are working quickly to bring about two transformations.

The first entails shifting business to the Digital Workplace Business by leveraging the customer base of our Office Printing Business and providing greater added value. This will involve visualizing our customers' workflows, viewing customers that we have developed over the years in our Office Business as assets. We will then provide managed IT services for comprehensively managing IT infrastructure, which includes teleworking environments for our customers, as a service to support DX and a distributed working style. We will also provide solutions to diagnose and address information security, an area of increasing importance, as well as solutions specialized to our customers' different lines of business and industries.

The second transformation entails achieving a business portfolio transformation that speeds up business growth companywide in the measurement, inspection, and diagnosis fields. Three businesses will become pillars of our company going forward. One is the Professional Print Business, which will bring individualized, distributed, and laborsaving solutions in digital form. Another is the Healthcare

Business, which will support early diagnosis functions that include gene testing to the next level digitally through safe, secure, remote, and individualized solutions. The last is the Industry Business, where we will provide imaging-IoT solutions as a platform to fulfill a demand for safe, secure, remote, and laborsaving solutions in measurement and inspection. To accomplish all this, we will allocate personnel, R&D expenditures, and investments and loans.
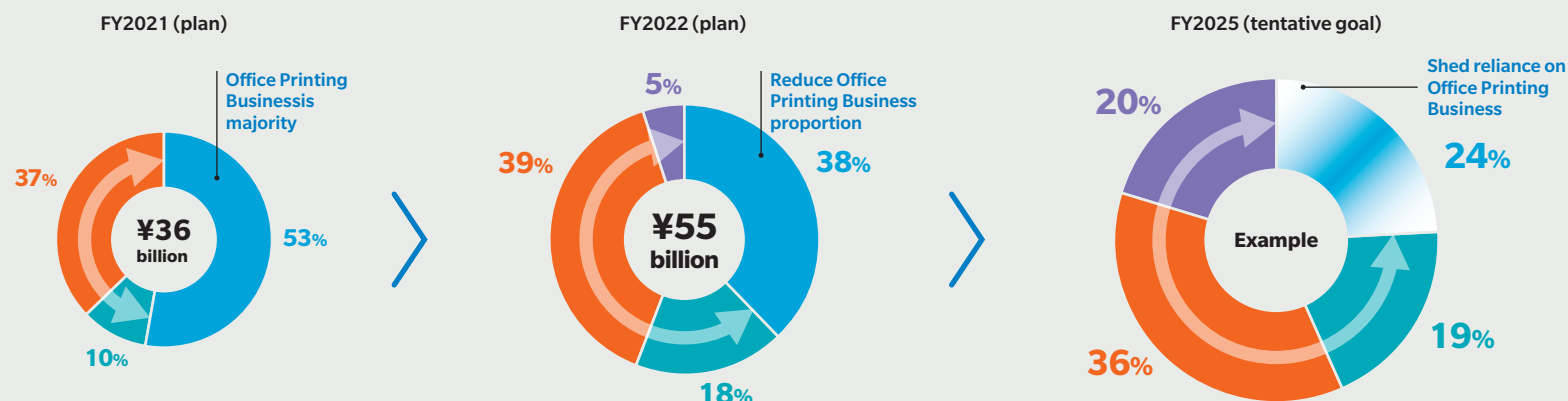
By quickly carrying out measures to achieve these transformations during the period of DX2022, we will complete our business portfolio transformation by FY2025 and significantly improve each business' operating profit composition.

Two transformations aimed at achieving business portfolios that are not reliant on the Office Printing Business

Office Printing Business → Two transformations

(1) Transformation into the Digital Workplace Business using the customer base of the Office Printing Business

Digital Workplace Business

(2) Business growth in the measurement, inspection, and diagnosis fields

Industry Business   **Healthcare Business**   **Professional Print Business**

Operating profit by segment

- Digital Workplace Business (including the Office Printing Business)
- Professional Print Business
- Healthcare Business
- Industry Business

FY2021 (plan)
¥36 billion
37%
10%
53%
Office Printing Business is majority

FY2022 (plan)
¥55 billion
5%
39%
18%
38%
Reduce Office Printing Business proportion

FY2025 (tentative goal)
Example
20%
36%
19%
24%
Shed reliance on Office Printing Business

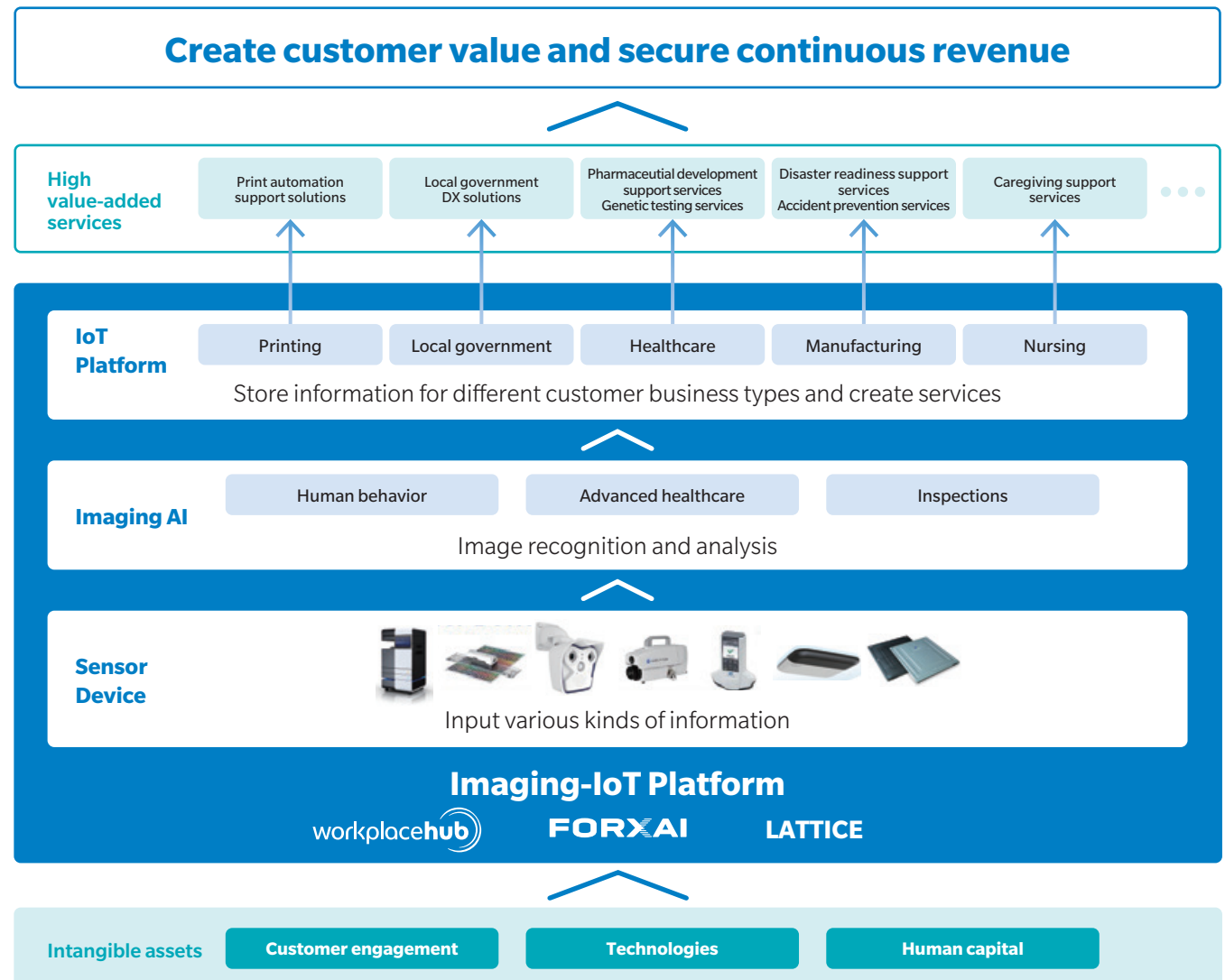## Medium-term Business Plan "DX2022"

Business model change through DX

Establishing a data-driven platform business

To achieve our business portfolio transformation, we are shifting toward a business model that centers on high-value-added services through DX (DX as a Service) from a product-oriented goods-sales business model. We will accomplish this by establishing a proprietary platform business that brings together imaging technologies developed over our long history with state-of-the-art IoT and AI technologies.

We will be able to "visualize" problems encountered by professionals in a variety of fields by reading and converting data images and other information from our customers' workplaces gathered via sensor devices, an area in which we excel, and analyzing them with AI. We will then hold on to this information for different types of businesses and provide it as a solutions service.

After establishing a platform to provide the services, we will build an ecosystem linking business partners with customers and create a business that will ensure continued, stable earnings.

We will consolidate intangible assets such as the imaging technologies we have developed over the years, human capital of more than 40,000 employees in our Group worldwide, and customer engagement with close to two million customers, and we will transform our business model.

Create customer value and secure continuous revenue

High value-added services
- Print automation support solutions
- Local government DX solutions
- Pharmaceutical development support services / Genetic testing services
- Disaster readiness support services / Accident prevention services
- Caregiving support services

IoT Platform
- Printing
- Local government
- Healthcare
- Manufacturing
- Nursing

Store information for different customer business types and create services

Imaging AI
- Human behavior
- Advanced healthcare
- Inspections

Image recognition and analysis

Sensor Device

Input various kinds of information

Imaging-IoT Platform

workplacehub   FORXAI   LATTICE

Intangible assets
- Customer engagement
- Technologies
- Human capital

Medium-term Business Plan "DX2022"

DX strategies for each business with a view to FY2022

Digital Workplace Business

Strategy — Transformation into the Digital Workplace Business on the assumption of a decline in office printing

- While maintaining and expanding the customer base we have developed in the Office Printing Business, we will provide additional value-added services in the form of digital workflow services tailored to different business types, as well as managed IT services and cyber security services targeting all business types. We will also transform into the Digital Workplace Business by offering further lifetime value to customers.

- We will improve the gross profit ratio by obtaining major accounts through an array of new MFP products launched in FY2020, reducing service costs by replacing previous models owned by existing customers (replacing consumable parts less frequently and expanding remote service maintenance), and offering a flat rate system. We will also grow our customer base in growth markets (China, India, APAC) in which we are a market share leader.

- We will establish a stable revenue base by expanding sales of proprietary development software that has a high gross profit ratio and broadening our offerings for monthly recurring revenue models. We will also expand sales of services to achieve business process DX in different sectors (including education, healthcare, law, finance, and local government).

- We will reduce cost of goods sold by improving sales productivity through the use of AI in customer targeting and proposal making, by continuing to expand inside sales and remote sales, which have seen success during the COVID-19 pandemic, and by outsourcing back office operations for services. We will also reduce R&D costs by narrowing development projects.

CAGR by market (2020 → 2022)

MFP	Hardware	+2%
	Non-hardware	+3%
IT services		+8%

* Konica Minolta estimates

Strategic KPI

	2021	2022
MRR* growth rate	+15% or more/yr	+15% or more/yr
Customer retention	+1pt/yr	+2pt/yr
Sales growth by industry	+15% or more/yr	+20% or more/yr
Service factory countries	10	25
Sales growth rate of products/ services developed by Konica Minolta	+15% or more/yr	+15% or more/yr

* MRR: Monthly Recurring Revenue

Professional Print Business

Strategy — Expand competitive advantages in the growing commercial and industrial digital printing markets

- As we become a leader in the digital printing market, which is expected to undergo continued growth, we are looking to gain more large printing companies as customers. To do this, we will expand our customers' and our business by pairing heavy production printers (HPP) with industrial printing machines and supporting print workflow DX. We will also support customers in transitioning from analog to digital printing.

- We will improve production efficiency among small and medium-sized printing companies by providing new models of light production printers (LPPs) and mid production printers (MPPs) equipped with the same functions as with HPPs, and will maintain market share leadership in this market. We will also expand sales in growth markets (China, India) in which we have very high market share.

- We will increase print volume by adding automatic inspection functions to the intelligent quality optimizer function (IQ-501), which makes use of technologies from the sensing business, to greatly improve work efficiency. We will also reduce service costs by broadening our remote service maintenance with the rollout of new LPP and MPP models.

- We will launch and grow sales of new high-speed label printer models in the industrial print domain, which is primed for considerable digital print volume growth. We will also grow sales by providing total solutions that bring together high-speed inkjet printers with digital embellishment printing to satisfy package printing demand. These efforts will see us greatly increase our non-hardware sales.

CAGR by market (2020 → 2022)

Commercial printing		+7%
Label printing		+6%
Package printing		+15%

* Konica Minolta estimates

Strategic KPI

		2021	2022
HPP market share		35%	40%
YoY sales Non-hardware	Production Print	+22%	+5%
	Industrial Print	+24%	+28%

Medium-term Business Plan "DX2022"

DX strategies for each business with a view to FY2022

Healthcare Business

Strategy — Solving problems using AI and data, with support from our existing technologies and customer base

- Challenges remain with regard to enhancing diagnoses, providing preventive medicine, conducting online diagnoses, and achieving efficiencies in medical resource usage through inter-hospital coordination in developed countries, as well as improving healthcare access, boosting pharmaceutical development process efficiency, and providing precision medicine in developing countries. We will speed up efforts to resolve these issues by using AI and data with support from our existing technologies and customer base.
- In the diagnostic equipment domain, we will expand sales of X-ray systems whose dynamic analysis functions provide high added value in Japan, the U.S., and China.
- In the medical IT domain, we will focus on "infomity," with which we are building a customer base in Japan, and provide online diagnosis services and promote inter-hospital coordination. We will also bring PACS (picture archiving and communication systems) to the ASEAN region after deploying it in Japan and the U.S. Furthermore, starting in Japan, we will deploy AI-powered imaging support systems and diagnosis support systems.
- In the genetic diagnostics domain, along with growing sales by increasing the number of high-precision RNA test samples, we will globally expand the CARE Program, which includes genetic diagnostics for cancer screenings, to countries beyond just the U.S. and Japan. We will also market new panel tests jointly developed with the University of Tokyo and the National Cancer Center Japan. At the same time, we will establish a proprietary integrated diagnostics data platform by consolidating gene, pathology, and image data, and contribute to the early detection of diseases while also operating a data business for the pharmaceuticals market. (→P33)

CAGR by market

Healthcare [1]	X-ray diagnostic equipment	+1%
Precision medicine [2]	Biomarker market	+16.3%
	Next-generation sequencing market	+31.4%

*1 2020 → 2022 Konica Minolta estimates.
*2 2020 → 2025 BCC Research (2021)

Major KPI

	2021	2022
DR integrated X-ray system, dynamic analysis, and Asia business revenue growth rate	+8% or more	+15% or more
Medical IT service revenue growth	+5% or more	+8% or more

Industry Business

Strategy — Expanding growth industries through sensors, imaging IoT and AI technologies, and key devices

- In the sensing field, where we hold more than 50% market share in light source color measurement for various displays, we will leverage the technologies of two companies we have acquired over the last several years and expand business in the automobile visual inspection domain as well as the internal components testing domain, which includes such things as foods, drugs, and recycling. (→P29)
- In the materials and components field, where we provide key devices essential for industry, we will strengthen profitability by providing high-added-value products that leverage core technologies. We will expand sales of performance materials by using a new resin named SANUQI film, in addition to the TAC products we have already been using, for wide-ranging applications that involve the growing market for displays used in products such as large TVs, small and medium-sized mobile devices, and automobiles. For inkjet heads, we will expand business in industrial printing and POD (print on demand), two domains primed for considerable growth, by providing products with high durability, high-precision that make use of MEMS technology, and special ink application.
- In the imaging-IoT field, where we have evolved imaging along with the times, we will globally deploy imaging-IoT platform "FORXAI," which brings together proprietary imaging AI technologies with a range of sensor devices that read images. (→P31)

CAGR by market (2020 → 2022)

Sensing	Light source color / object color	+1%
	Automotive exterior	+16%
Performance materials	Large TVs (LCD+OLED)	+15%
	Medium-sized devices (mobile devices)	+11%
Inkjet	Industrial applications	+34%
	POD	+28%

* Konica Minolta estimates

Strategic KPI

		2022
Sensing	Expanding the strategic investment business (visual inspection and HSI* industry applications)	Strategic investment business revenue ratio: 17%
Performance materials	Expanding growth domains (materials for large-sized TVs and ultrathin film functions for small and medium-sized devices)	- Large-screen TVs: 30% or more - Small and medium-sized devices: 50% or more
Inkjet	Business expansion via new head and ink products	- Industrial print share: 72% - POD share: 14%
Imaging IoT	Strengthen imaging-IoT platform collaboration with partners	- Sales partners: 37 companies - Technology partners: 63 companies

* HSI: Hyperspectral imaging

Medium-term Business Plan "DX2022"

Strengthening the intangible assets that support business DX

Customer engagement | Leveraging a customer base of two million companies to provide continued, long-term value for different industries and regions
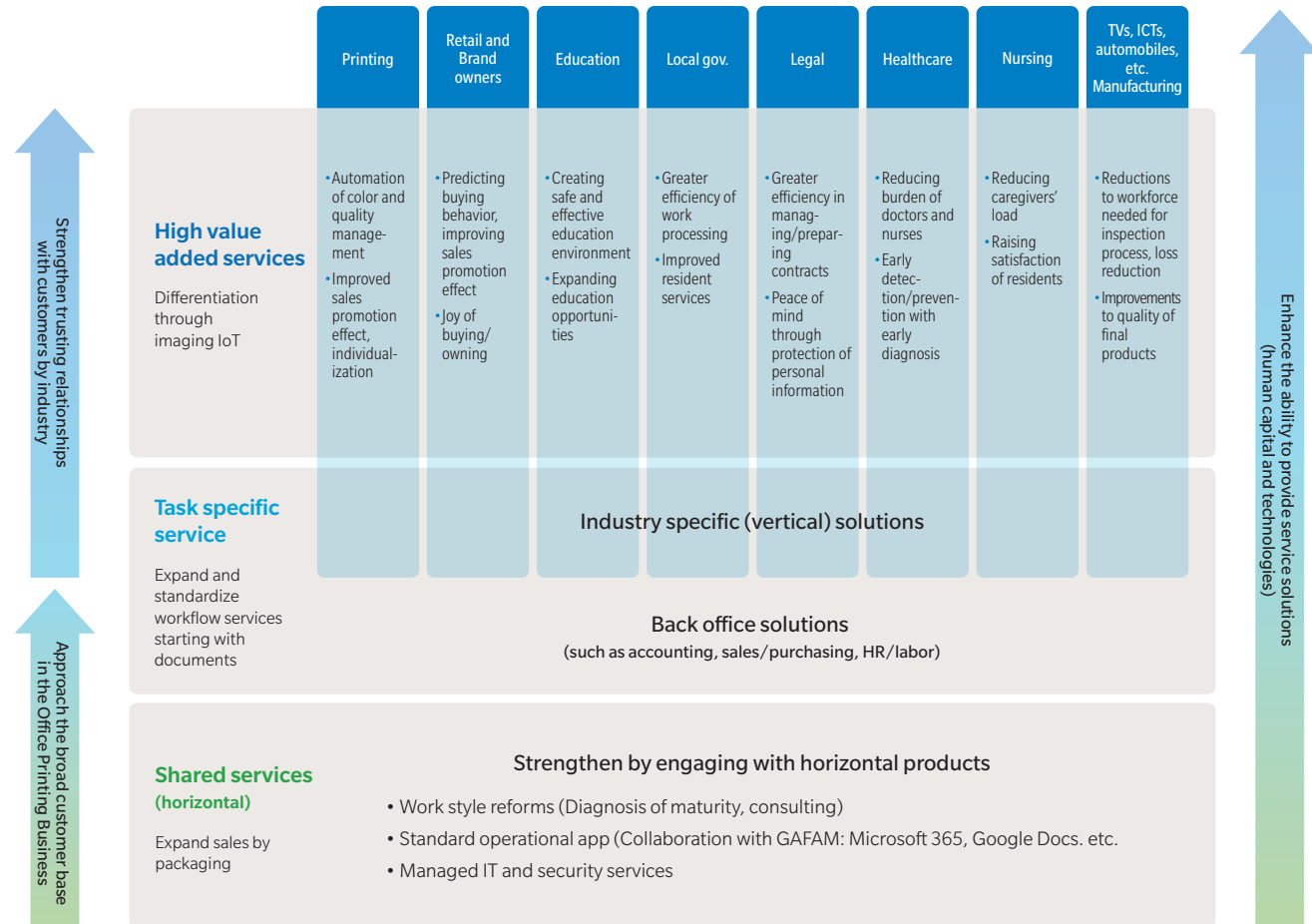
Strengths

- Market share leader in markets we have cultivated using "genre-top strategies" that focus resources on domains primed for growth and domains with prospects for success
- Global customer base of two million companies spanning a multitude of industries
- In Digital Workplace Business, engagement with a wide range of customers that are primarily SMEs, with some global companies and governmental organizations as well
- In Professional Print, Healthcare, and Industry businesses, relationships with customers built by closely working with such industries as printing, healthcare, displays, and automobiles
- New customer bases targeting specific lines of business, industries, and solutions gained through acquisitions

Basic Strategy

- Boost sales efficiency by packaging services used by many industries, including work style reform and standard operational apps as well as managed IT services that provide customers with a full range of IT security and IT infrastructure management
- Specialize in document-based workflows for operations such as accounting, sales, purchasing, and HR for a broad range of customers, building on, improving, and standardizing services that include digitalization. Also coordinate with industry specific solutions
- Strengthen Konica Minolta's ability to provide value for different industries and types of business by providing solutions tailored to business types in which we excel in different regions. Cultivate the markets for healthcare and ICT brand owners in the U.S.; for manufacturing in Europe; for printing, displays, and other product manufacturing in China and Asia; and local governments, healthcare, nursing, and manufacturing in Japan

Strategies by target business types

Medium-term Business Plan "DX2022"

Strengthening the intangible assets that support business DX

Technologies | Leveraging AI and IoT to further advance imaging technologies developed over the years

Strengths

- Proprietary imaging technologies that fulfill customers' desire to "see"
- Four technology domains—"materials," "optics," "nanofabrication," and "imaging"—that we have refined as core technologies in the process of creating various products
- World-class imaging AI technologies in the field of human behavior recognition
- World-class sensing devices developed over the years in the Industry Business and Healthcare Business, and newly-acquired hyperspectral imaging technologies
- Engineer mindset focused on knowing customers and markets and making business proposals, not just knowing their own specialized technologies, and an education system to foster that mindset
- Manufacturing system built up to provide high precision, high quality products, and world-class intellectual properties in the precision equipment industry

Basic Strategy

- Create and provide new value to customers by upgrading and consolidating core technologies, and combining them with AI
- Integrate state-of-the-art imaging AI technologies into Konica Minolta and other companies' sensor devices and strengthen the three-part "imaging-IoT technologies" through which we provide customer value via the IoT Platform
- Work with imaging AI technology partners to quickly provide the solutions customers need, while also aiming to be a technology leader in our fields of focus (human behavior, advanced healthcare, and inspections)
- Expand sensor device wavelength range and grow the Industry Business
- Implement a genre-top IP strategy for maintaining the competitive advantage of Konica Minolta technologies
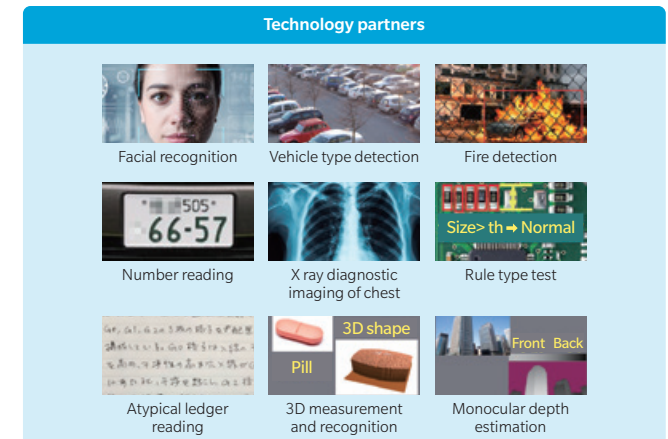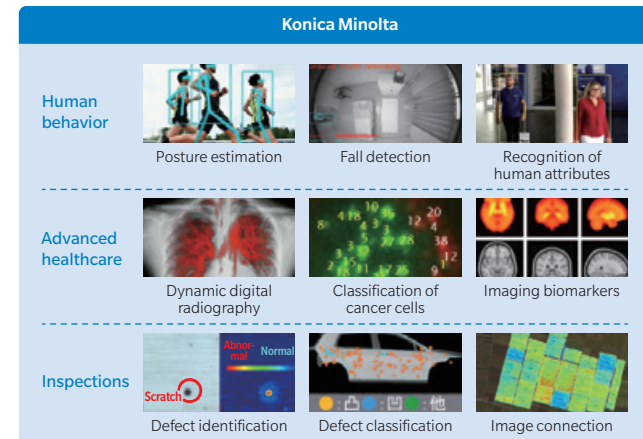
Reinforcing Imaging AI

Konica Minolta		
Human behavior		
Posture estimation	Fall detection	Recognition of human attributes
Advanced healthcare		
Dynamic digital radiography	Classification of cancer cells	Imaging biomarkers
Inspections		
Defect identification	Defect classification	Image connection

Technology partners		
Facial recognition	Vehicle type detection	Fire detection
Number reading	X ray diagnostic imaging of chest	Rule type test
Atypical ledger reading	3D measurement and recognition	Monocular depth estimation

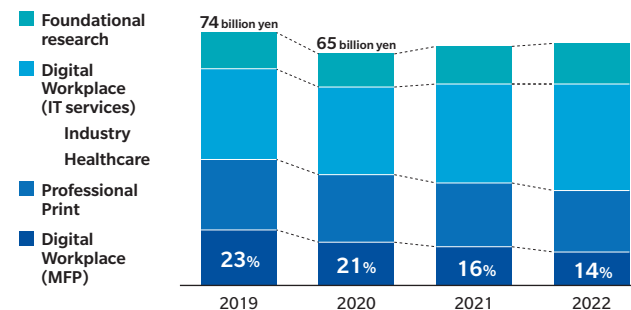Image recognition algorithms

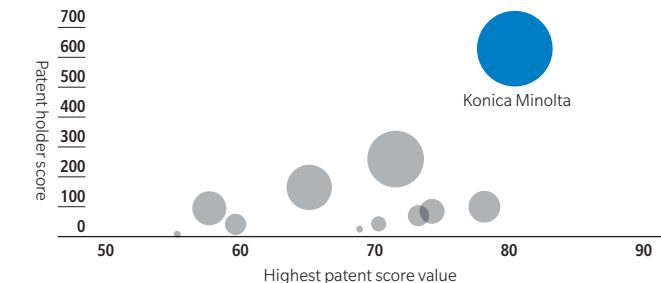**Konica Minolta** Specializing in areas where we can utilize our strengths

+

Technology partners Rapidly incorporate cutting edge technology outside of our own areas of strength

Expand on and improve R&D into imaging-IoT technologies

- Foundational research
- Digital Workplace (IT services)
- Industry
- Healthcare
- Professional Print
- Digital Workplace (MFP)

74 billion yen　　**65** billion yen

2019	2020	2021	2022
23%	21%	16%	14%

Genre top of intellectual property in imaging-IoT technology (e.g., IQ-501 technology IP position)

Patent holder score: 700, 600, 500, 400, 300, 200, 100, 0

Konica Minolta

Highest patent score value: 50　60　70　80　90

Note: Prepared by Konica Minolta using "Biz Cruncher" by Patent Result Co., Ltd.

Medium-term Business Plan "DX2022"

Strengthening the intangible assets that support business DX

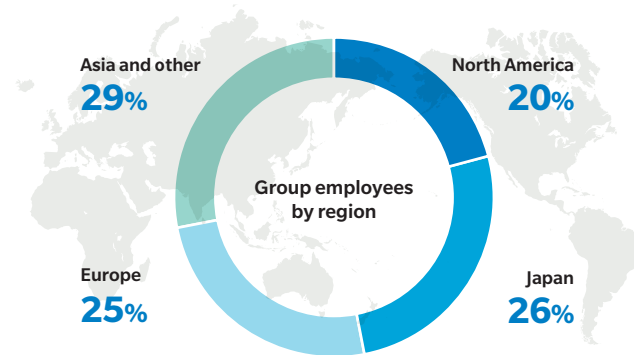## Human Capital | Improving and expanding upon imaging-IoT talent needed to achieve DX

Strengths

- Diverse workforce of more than 40,000 employees in the Konica Minolta Group
- Talent who have brought brand new identities, knowledge, and experience to the company, acquired through active M&A efforts over the past 10 years
- HR and benefits programs, along with measures to make personnel transfers easier, shared throughout the Group, and opportunities to attempt anything, anywhere in the world, for all employees
- Improving on and expanding a corporate culture, education, training, and systems that facilitate women's workplace participation
- System to support good mental and physical health tailored to primarily remote work, and an ability to execute programs focused on such things as organizational development and building resilience
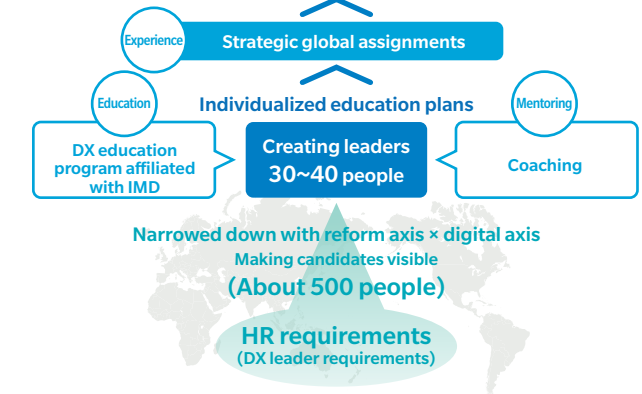
Basic strategies

- Foster DX leaders and talent to bring DX business closer to customers: selecting DX business leader candidates from around the world and conducting assessments and training programs in conjunction with IMD, a Switzerland-based business school with an established reputation in the DX domain (the first wave began with the Digital Workplace Business and Professional Print Business). This involves assigning DX business leader candidates to DX leader positions and promoting DX business expansion and internal DX initiatives
- Shift talent to achieve a smooth business portfolio transformation: a plan to provide internal training for imaging-IoT talent, ramping up external recruiting, and doubling the number of people from the current 500 to 1,000 by FY2023. This involves developing a systematic education program that will satisfy a need for advanced skills, and seamlessly shifting talent into the imaging-IoT field from other businesses
- Appoint female employees to Japan headquarters: increasing the proportion of women in management and leadership positions

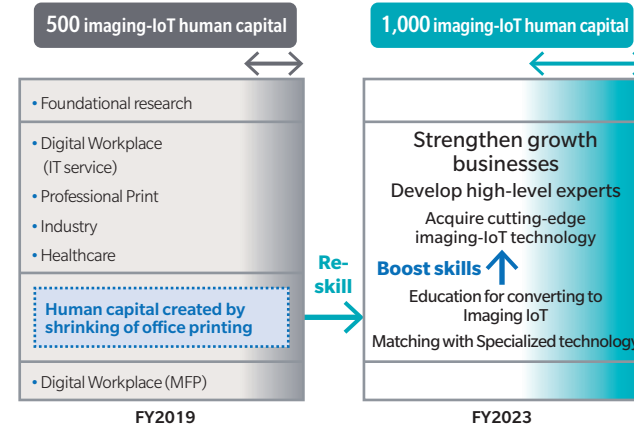### Leveraging a diversity of human resources and putting them to work worldwide spanning regional borders

Group employees by region

- Asia and other **29%**
- North America **20%**
- Europe **25%**
- Japan **26%**

Shift talent to achieve a smooth business portfolio transformation

500 imaging-IoT human capital ↔ **1,000 imaging-IoT human capital**

FY2019 column:
- Foundational research
- Digital Workplace (IT service)
- Professional Print
- Industry
- Healthcare
- **Human capital created by shrinking of office printing**
- Digital Workplace (MFP)

Re-skill →

FY2023 column:
- **Strengthen growth businesses**
- **Develop high-level experts**
- Acquire cutting-edge imaging-IoT technology
- **Boost skills** ↑
- Education for converting to Imaging IoT
- Matching with Specialized technology

FY2019 → **FY2023**

Foster DX leaders to bring DX business closer to customers

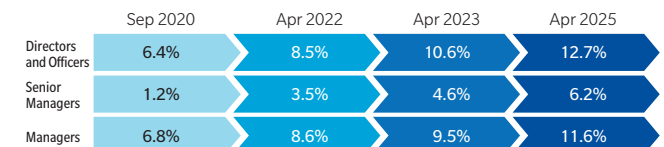**Expand DX business and accelerate promotion of DX internally**

- Experience
- Strategic global assignments
- Education
- Individualized education plans
- DX education program affiliated with IMD
- **Creating leaders 30~40 people**
- Mentoring
- Coaching

Narrowed down with reform axis × digital axis
Making candidates visible
(About 500 people)

HR requirements
(DX leader requirements)

Female manager ratios worldwide

U.S.	Europe	China	Other areas	Japan headquarters
32%	20%	23%	25%	7%
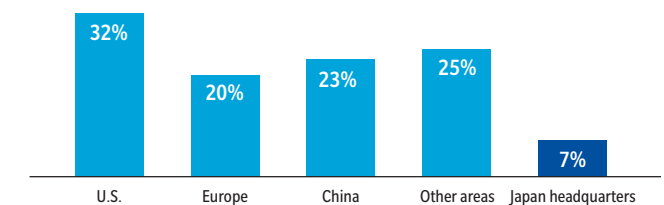
Facilitate women's workplace participation in Japan as soon as possible

	Sep 2020	Apr 2022	Apr 2023	Apr 2025
Directors and Officers	6.4%	8.5%	10.6%	12.7%
Senior Managers	1.2%	3.5%	4.6%	6.2%
Managers	6.8%	8.6%	9.5%	11.6%

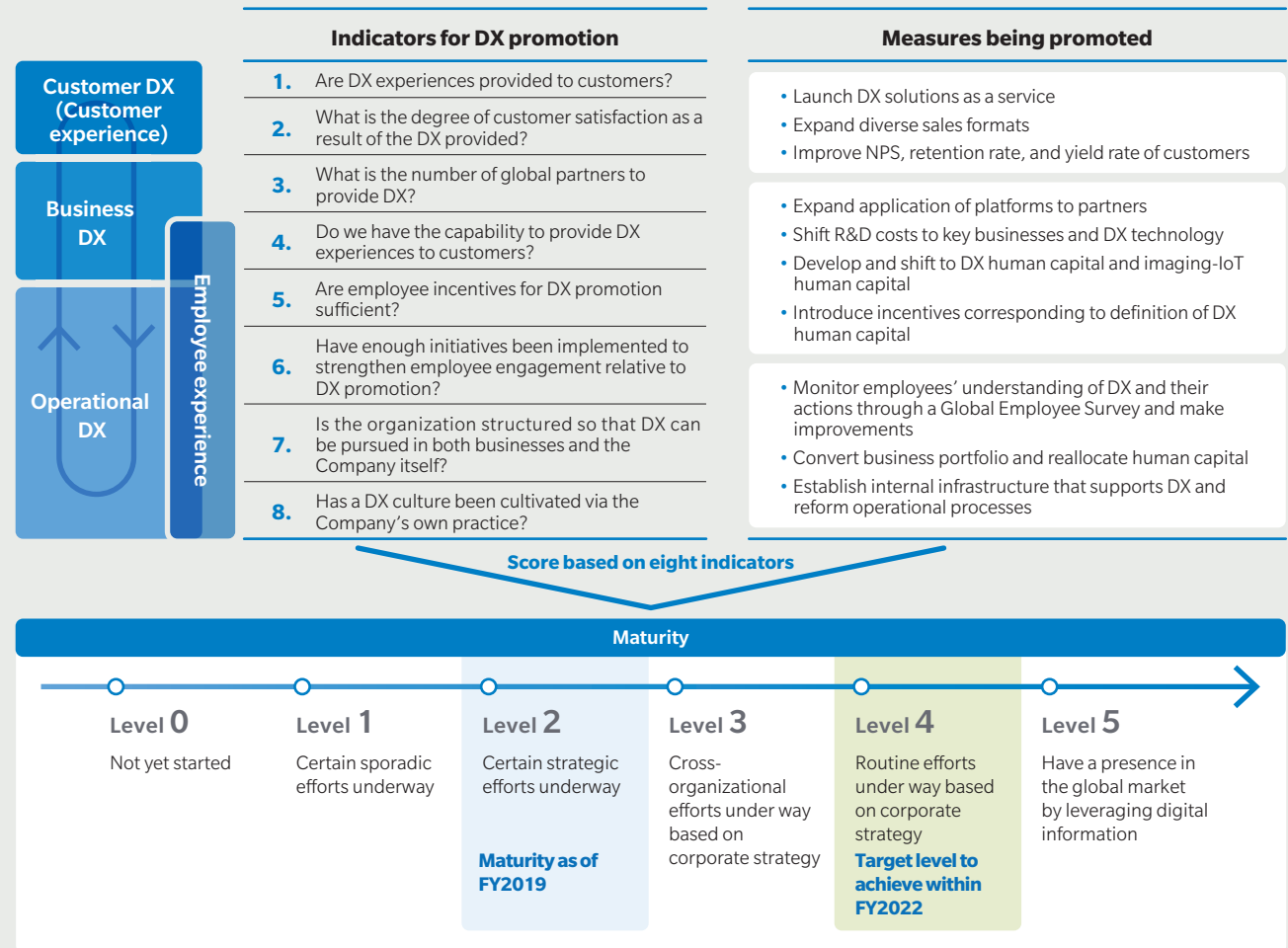## Medium-term Business Plan "DX2022"

Konica Minolta's Vision for DX

Create indicators for DX achievement and promote DX companywide

Konica Minolta sees DX as a two-layered means of enhancing corporate value. The first layer consists of "business DX," which involves enhancing customer value and continuously increasing gross profit through DX. The second layer consists of "operational DX," whereby we will leverage DX to boost sales, production, and management operation efficiency and productivity, as well as reduce our cost and SG&A ratios. All Konica Minolta organizations will promote these two DX during the DX2022 period.

　　To gauge our progress, we have established eight indicators for DX promotion. These indicators consist of business DX and operational DX, as well as customer DX, which measures how much we contributed to our customers' DX. We use them as a compass to guide us in thoroughly promoting DX companywide.

　　We calculate scores based on these indicators and comprehensively evaluate our DX maturity level on a six-point scale from levels 0 to 5. It has been determined that, as of FY2019, our overall maturity is level 2, "certain strategic efforts under way." We will carry out further DX efforts with a view to achieving level 4 by FY2022.

　　In recognition of our DX promotion efforts, we have been certified as a "DX-certified operator" in accordance with the DX Certification Initiative established by the Ministry of Economy, Trade and Industry in April 2021.

Digital Transformation Certification

Indicators for DX promotion

- Customer DX (Customer experience)
- Business DX
- Operational DX
- Employee experience

1. Are DX experiences provided to customers?
2. What is the degree of customer satisfaction as a result of the DX provided?
3. What is the number of global partners to provide DX?
4. Do we have the capability to provide DX experiences to customers?
5. Are employee incentives for DX promotion sufficient?
6. Have enough initiatives been implemented to strengthen employee engagement relative to DX promotion?
7. Is the organization structured so that DX can be pursued in both businesses and the Company itself?
8. Has a DX culture been cultivated via the Company's own practice?

Measures being promoted

- Launch DX solutions as a service
- Expand diverse sales formats
- Improve NPS, retention rate, and yield rate of customers

- Expand application of platforms to partners
- Shift R&D costs to key businesses and DX technology
- Develop and shift to DX human capital and imaging-IoT human capital
- Introduce incentives corresponding to definition of DX human capital

- Monitor employees' understanding of DX and their actions through a Global Employee Survey and make improvements
- Convert business portfolio and reallocate human capital
- Establish internal infrastructure that supports DX and reform operational processes

Score based on eight indicators

Maturity

Level 0 — Not yet started

Level 1 — Certain sporadic efforts underway

Level 2 — Certain strategic efforts underway

Maturity as of FY2019

Level 3 — Cross-organizational efforts under way based on corporate strategy

Level 4 — Routine efforts under way based on corporate strategy

Target level to achieve within FY2022

Level 5 — Have a presence in the global market by leveraging digital information

Message from the CFO

We will take a dynamic approach to strategic investments to complete the transformation of our business portfolio.

Seiji Hatano

Executive Vice President and Executive Officer
Responsible for Business Management, Accounting,
Finance, and Risk Management

Prioritizing two portfolio transformations

Our core Office Printing Business has seen a continued drop off in printing demand in recent years, and in fiscal 2020 this trend accelerated due to the COVID-19 pandemic. To address this change in business environment, we are now working to transform two different portfolios simultaneously. The first shift involves evolving the Office Printing Business, which had focused on MFPs, into the Digital Workplace Business, and the second is establishing the measurement, inspection and diagnostics domains as new pillars of business. At present, the top priority of management is quickly achieving these two portfolio transformations, with completion slated by fiscal 2025.

In our business portfolio management, we have rigorously evaluated the importance and role of each business according to the three areas of growth, profitability/capital efficiency and compatibility with strategy. Based on the results, we are mapping each under the quadrants of new strategic business, core business, stable profit business, and low profit business. We will take concrete action in allocating investments and resources to businesses vital to this business portfolio transformation. For low profit businesses, we plan to place every option on the table, including selling off the business or pursuing a capital tie-up with a third party, for improving profitability and selecting targeted businesses. In this manner, we will take action promptly, efficiently and in a dynamic nature.

Business portfolio management focused on capital efficiency

In terms of improving our business portfolio management, we are working to maximize corporate value and increase company-wide capital efficiency using the KPI of business-unit specific KM-ROIC[1] and company-wide capital cost. Specifically, we have set KM-ROIC (hurdle rate) for each business that needs to be achieved during DX2022, and now each business is implementing business strategy aimed at achieving this KPI. When reviewing the launch of new businesses or M&A, the period required for each deal's KM-ROIC to exceed the company-wide hurdle rate is used as one of the important criteria for judging whether to move forward with an investment. Furthermore, we aim to generate a return beyond the initial target while regularly reviewing the situation even after the investment is completed.

Meanwhile, we have established exit rules, such as falling below the business-unit specific hurdle rate and capital cost, for determining when to exit or scale down a business. Businesses that breach these rules will undergo a detailed review process for restructuring or exit.

We consider business-unit specific KM-ROIC and return on invested capital[2] to be foundations for the enhancement of company-wide capital efficiency. Through maximizing both, we will further enhance capital efficiency and corporate value.

[1] KM-ROIC is business profit divided by invested capital. It indicates the rate that business investment is generating business profit.
[2] Return on invested capital is business profit minus the cost of invested capital. It indicates how much value has been created above the cost of invested capital.

Setting financial targets and KPI for financial soundness

Under DX2022, we have established targets for each fiscal year covering not only profits, but also ROIC and financial soundness. However, our top priority is completing the two portfolio transformations mentioned above by fiscal 2025. Therefore, we intend to make strategic investments ahead of time as needed going forward. During this process, achieving the targets for ROIC and financial soundness could become a slightly lower priority.

Of course, we will maintain the target of restoring ROIC to a level higher than 6.5% in excess of capital cost by the end of fiscal 2025 along with the basic policy of aiming for ROIC of between 9% and 10% over the long term. There is also no change in our approach of further solidifying our financial foundation by strengthening financial governance, minimizing financial risks, improving cash efficiency, and boosting shareholders' equity and using this to support aggressive investments in growth during the timeline until fiscal 2025.

Capital policy for growth

Operating cash flow has seen a strong recovery since the second quarter of fiscal 2020. Looking ahead, we will work toward generating ¥100 billion in operating cash flow per year by working toward comprehensive improvements in the successful

Message from the CFO

undertaking of structural reforms and efficiency measures, boosting the profitability of new businesses, and the cash conversion cycle through further reducing inventories and trade receivables. Moreover, we plan to maximize cash inflows by either carving out non-core businesses and assets or seeking out capital tie-ups to accelerate upscaling.

We will earmark the cash generated for strategic investments in future growth in the amount of around ¥30 billion over the two fiscal years of 2021 and 2022. We intend to concentrate investment on business domains slated to become the next pillars of our growth, and we will also explore the possibility of executing investments planned for fiscal 2023 and later ahead of time in order to complete our business portfolio restructuring by fiscal 2025.

In terms of capital expenditures, we will take a dynamic approach, where we rein in capital expenditures in the Office Printing Business, but at the same time increase spending directly tied to DX and business growth. We will also strive to reduce debt after considering the optimal balance between growth investments and financial soundness.

Shareholder returns

Our basic policy regarding shareholder return is to proactively distribute earnings to shareholders after comprehensive consideration of factors including consolidated business results and strategic investment in growth areas. For fiscal 2020, we paid a dividend of ¥25 per share, consisting of a ¥10 interim dividend

and ¥15 year-end dividend.

In fiscal 2019 and fiscal 2020, we prioritized liquidity on hand because of the unprecedented nature of the COVID-19 pandemic, which forced us to reduce our dividend below the ¥30 per share level that we had maintained for some time. However, we have seen a steady recovery in our profits and ability to generate cash since the second quarter of fiscal 2020. As a result, we are making solid progress toward achieving our management plan targets for fiscal 2021 and beyond.

We expect to be able to restore the annual dividend to ¥30 per share in fiscal 2021. Looking forward, we are committed to making steady progress toward further enhancing corporate value.
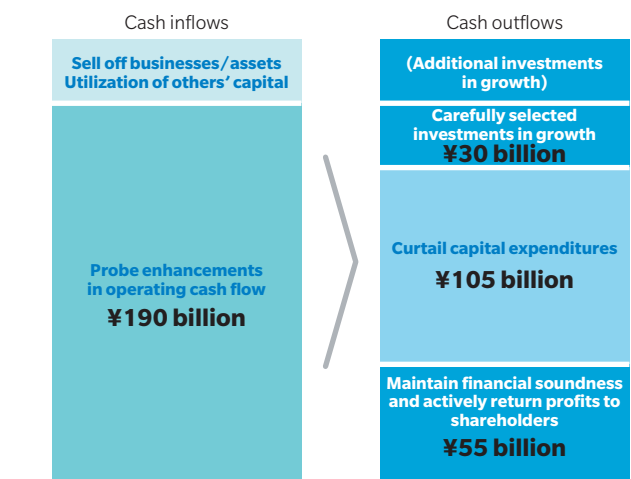
Business Portfolio Management

■ Digital Workplace Business　■ Professional Print Business　■ Healthcare Business　■ Industry Business
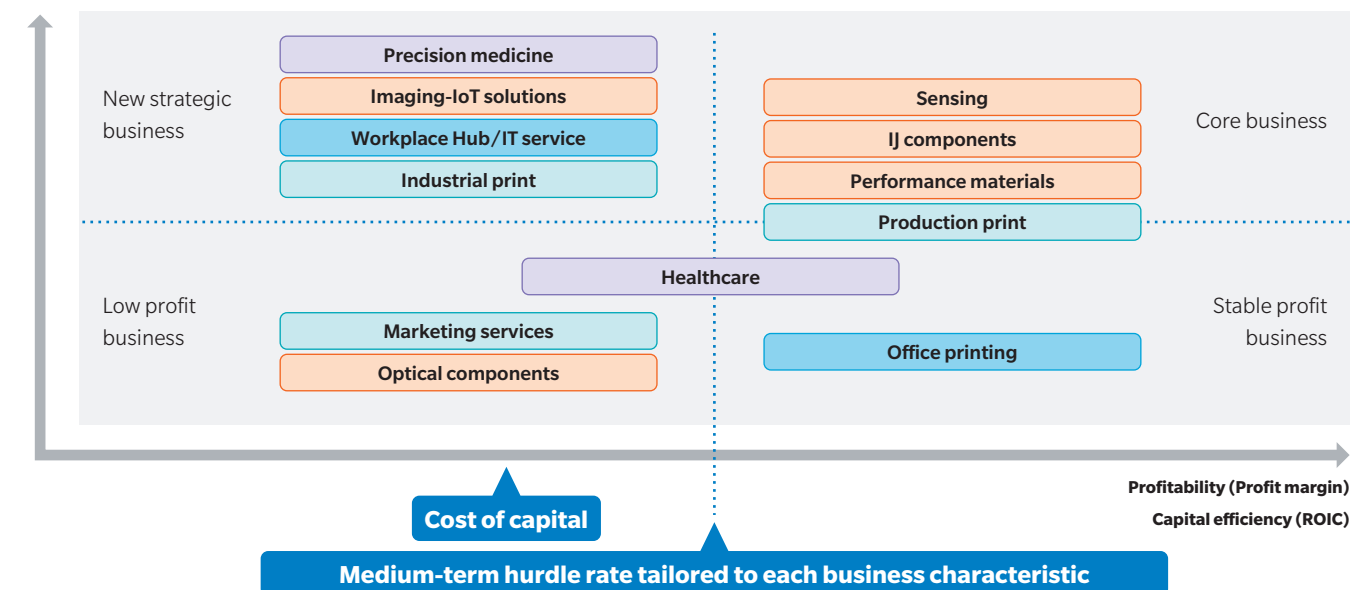
Approach to cash allocation for fiscal 2021/fiscal 2022

Medium- to long-term growth drivers

Sensing business growth strategies

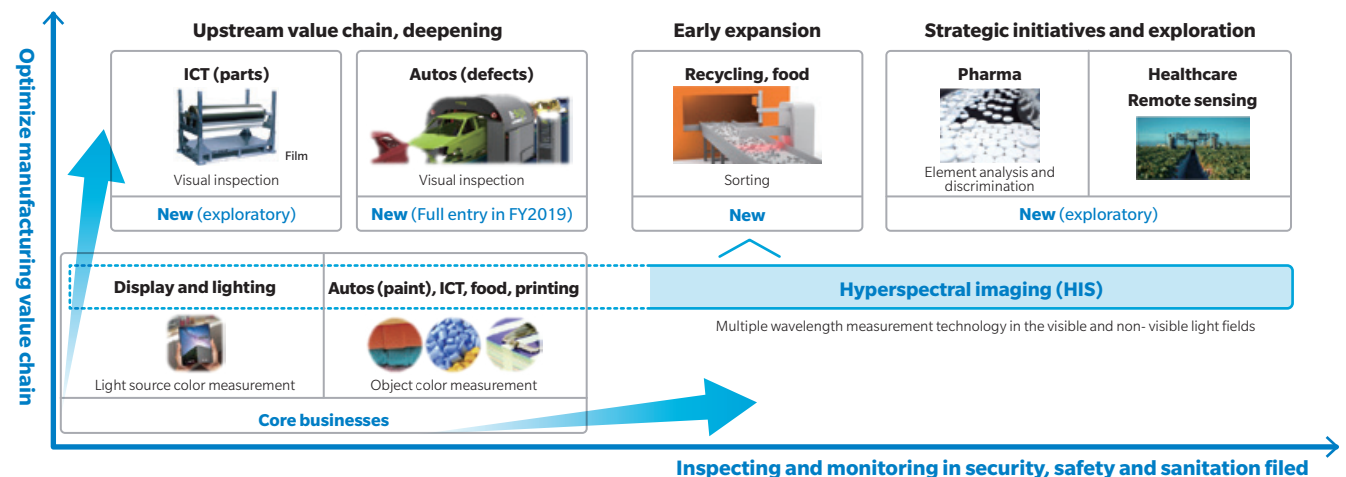### Sensing business strengths and market forecast

Based on the optical technologies we have developed over many years, Konica Minolta provides the world with competitive measuring instruments in three domains. One is light source color measurement, which includes light source color measuring instruments for displays, an area where Konica Minolta holds more than 50% of the global market share. Another is object color measurement, which meets color quality management needs in a broad range of industries. The last is visual surface inspection, where we provide products for the ICT and automotive industries. As one strength of our sensing business, since our customers are companies with global supply chains, we have a business model that allows for expanding the sales of measuring instrument models specified by these companies across the entire supply chain. Through a worldwide service support network, we can keep in continuous contact with our customers and stay abreast of the latest trends in the industry.

Measuring instrument demand is being aided by an increasing demand for IT devices due to the proliferation and expansion of teleworking and more people staying at home by COVID-19, as well as a trend toward automation and laborsaving on production floors. This demand is projected to grow even further, from ¥38 billion to ¥50 billion for light source color measurement, from ¥44 billion to ¥50 billion for object color measurement, and from ¥600 billion to ¥870 billion for the entire light and image measurement market.

Going forward, our strategy will focus on expanding business into the upstream region of the value chain and into security, safety, and sanitation field, further expanding growth with the "visual inspection for automobiles" and "hyperspectral imaging (HSI)" businesses, in particular, which we position as strategic investment.

Growth strategies for the sensing business

Optimize manufacturing value chain

Upstream value chain, deepening

ICT (parts)	Autos (defects)
Film	
Visual inspection	Visual inspection
New (exploratory)	**New** (Full entry in FY2019)

Early expansion

Recycling, food
Sorting
New

Strategic initiatives and exploration

Pharma	Healthcare Remote sensing
Element analysis and discrimination	
New (exploratory)	

Display and lighting	Autos (paint), ICT, food, printing
Light source color measurement	Object color measurement

Hyperspectral imaging (HIS)

Multiple wavelength measurement technology in the visible and non- visible light fields

Core businesses

Inspecting and monitoring in security, safety and sanitation filed

Medium- to long-term growth drivers

Growth strategy 1: Expanding visual inspection

Speeding up the business expansion in the automobile market

Facing a shortage of workers, automakers are increasingly looking to automate production processes. One process in particular is the visual inspection of vehicle bodies. Because the human eye is often relied upon for these inspections, it is a major challenge to improve quality, achieve consistency, and save labor.

Seeing the chance to solve a problem for the automobile industry as a growth opportunity, we are actively investing in the business of visual inspection for automobiles, which includes looking for scratches, gaps, or unevenness on vehicle exteriors. In 2015, we acquired Radiant Vision, a major U.S.-based manufacturer of display inspection systems and took ownership of their visual inspection technologies. Then in 2019, we acquired Spain-based Eines Systems, a leading company in the automobile visual inspection market. Eines is a technology company whose primary business is providing automated systems and solutions for quality inspections in automotive production processes. It has a global customer base and excels in customer-centric development.

Eines' automated quality inspection system for automobile production

Konica Minolta will continue making strategic investments in the visual surface inspection business for automobiles and accelerate growth in this field.

Growth strategy 2: Entry into the HSI market

Expanding business into the security, safety and sanitation field

Previously, Konica Minolta's sensing technologies have consisted mainly of technologies for measuring visual light. Going forward, however, we will expand the range of "visualization" by broadening our scope to include the invisible light region. As part of this effort, in December 2020 we acquired Finland-based Specim, Spectral Imaging, a leading company in hyperspectral imaging, a multi-wavelength measurement technology for the visible light and invisible light regions. Having this company's technologies allows us to not only inspect the color and appearance of object surfaces but also internal components.

For example, the sorting of plastics is gathering attention in the field of recycling, which is an area set to see greater demand amid efforts to build a circular economy. HSI is now being used to

HSI enabling sorting based on material type

Color image   HSI processing image

- 🟥 PET
- 🟨 PP
- 🟩 PVC
- 🟦 HDPE
- 🟪 PS

sort black plastic material, which had previously been difficult to automatically identify.

The HSI market is predicted to see an average annual growth rate of 15% between 2020 and 2025. Positioning HSI technology as a linchpin of our growth strategy for the sensing business, we will expand our business in security, safety and sanitation field through areas such as foreign material inspections for foods and pharmaceuticals and material sorting for recycling.

Comment from Specim

Specim is a global leader in hyperspectral imaging and our international team is equipped with expertise in optics, electronics, software, and sensor technologies. We serve the market with the broadest range of hyperspectral cameras, imaging spectrographs, systems, software, and accessories.

Our products are globally used in machine vision systems, inspecting food or pharmaceutics production quality, sorting waste, or measuring printed color accuracy. Our products are chosen by numerous research labs, including world recognized centers and installed and operated in drones and large-scale remote sensing airplanes.

Konica Minolta shares our vision and values and will greatly support our business through improved sell-through and reach to global customers. We see many potential synergy benefits in new product development and global sales network expansion.
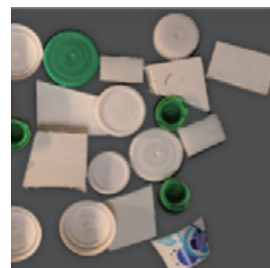
We are excited and motivated to work as a part of Konica Minolta Group to grow our common business and add value to our customers globally.
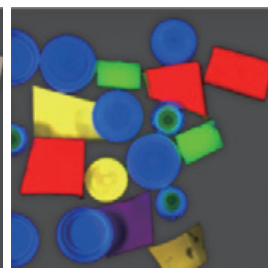
Tapio Kallonen,
CEO of Specim

Medium- to long-term growth drivers

Growth strategies for imaging-IoT solutions business
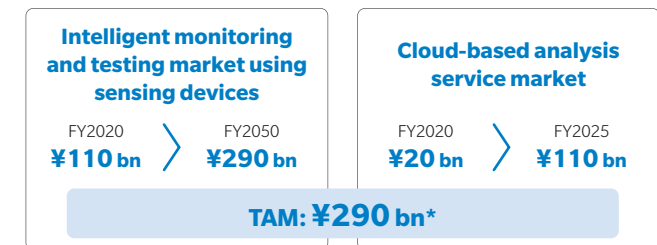
Imaging-IoT solutions business strengths and market forecast

The image analysis services market is expected to see demand growth as a result of recent AI technology advances and social needs that have been made clear by COVID-19, including solutions that are safe, secure, remote, contactless, personalized, and distributed. Within this market, Konica Minolta is targeting the cloud-based analysis service market and the intelligent monitoring and testing market using sensing devices. These are estimated to grow to a combined ¥290 billion by FY2025.

Key to cultivating both of these markets will be FORXAI, a proprietary imaging-IoT platform. FORXAI consists of an IoT platform that can provide remote support for connected devices, as well as high-speed, high precision imaging AI and sensor devices that leverage sensing technologies, an area of strength for Konica Minolta. Through this platform, we will identify problems by using imaging AI to analyze mostly image data that is constantly coll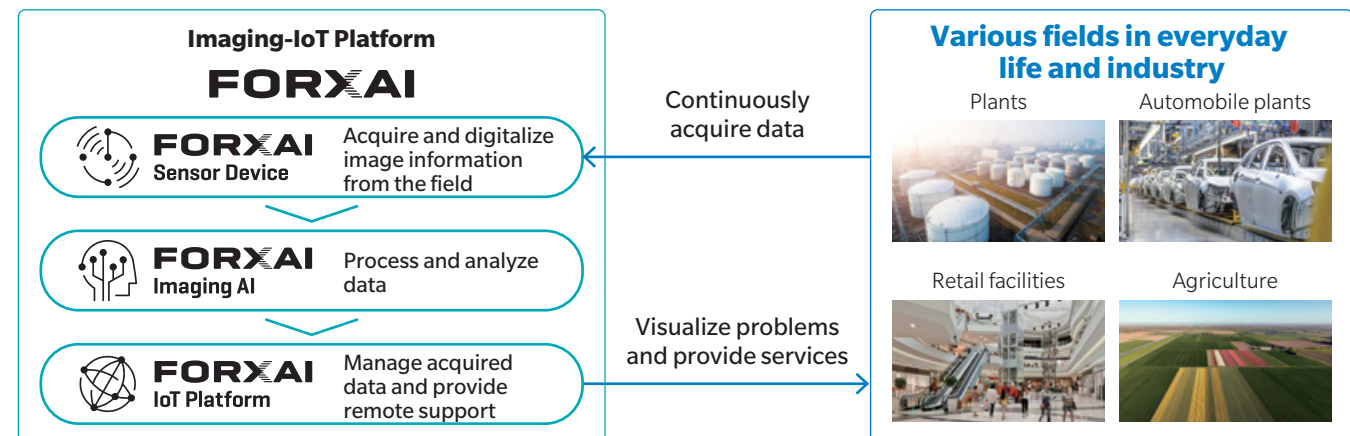ected by sensor devices. We will also work with partners to quickly create a variety of services and accelerate DX with a view toward making society safer and more secure.

Estimated image analysis services market size

Intelligent monitoring and testing market using sensing devices	Cloud-based analysis service market
FY2020 → FY2050	FY2020 → FY2025
¥110 bn → **¥290 bn**	**¥20 bn** → **¥110 bn**

TAM: ¥290 bn*

* Market for image analysis services that use sensing systems such as CPU-equipped network cameras with AI processing functions and links to the cloud (Konica Minolta estimates)

Konica Minolta's proprietary imaging-IoT solutions

Imaging-IoT Platform
FORXAI

- **FORXAI Sensor Device** — Acquire and digitalize image information from the field
- **FORXAI Imaging AI** — Process and analyze data
- **FORXAI IoT Platform** — Manage acquired data and provide remote support

Continuously acquire data

Visualize problems and provide services

Various fields in everyday life and industry

Plants   Automobile plants

Retail facilities   Agriculture

Medium- to long-term growth drivers

Strengthening sensor device and imaging AI technologies

Developing world-class AI technologies in three domains: human behavior, advanced healthcare, and inspection

The rapid advance of AI technologies in recent years has seen many companies focusing on product or service development. Konica Minolta has improved and built upon a sensor device lineup that includes gas monitoring cameras and MOBOTIX network cameras. At the same time, in order to use image data taken from these devices to solve our customers' problems, we have developed an image analysis-based proprietary AI algorithm that is powered by state-of-the-art deep learning technologies.

Konica Minolta's imaging AI technologies are at the top of their class worldwide in three areas: human behavior, advanced healthcare, and inspection. For example, we have an extensive track record in the monitoring domain for recognition accuracy and processing speed for an algorithm capable of recognizing human behavior and objects at the same time. With regard to inspection, our solutions provide high accuracy when determining product acceptability through visual inspections.

World-class recognition accuracy and processing speed for human behavior and object recognition (results compared to top companies in the International Conference on Computer Vision)

Deploying our IoT platform

Deploying solutions using our IoT platform

Our IoT platform technologies bring together sensor devices and imaging AI technologies to provide a group of technologies that allow for the simple and secure building of solution services. The three core technologies that make up FORXAI are already being used in settings that include healthcare, nursing, plants, factories, retail facilities, and agriculture. For example, we have collaborated with Marubeni Group companies such as the Marubeni Corporation to codevelop "people flow marketing" solutions, which involve analyzing the behavior of visitors to retail facilities from camera footage and identifying marketing data from it that includes numbers of shoppers, numbers of mutual shoppers of different stores in a facility, shopper time attributes, and routes taken by shoppers. We then provide this data to help stores develop efficient sales strategies.

Going forward, we will provide such solutions through a subscription model as a means to forge ongoing relationships with partner companies and ensure consistent earnings. Konica

Building FORXAI

Minolta has already rolled out the FORXAI Partner Program and is now working to create value by having numerous companies participate in the program by developing various technologies and solutions that include AI algorithms.
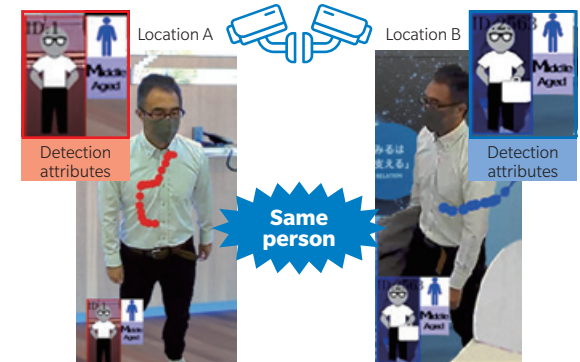
"People flow marketing" concept
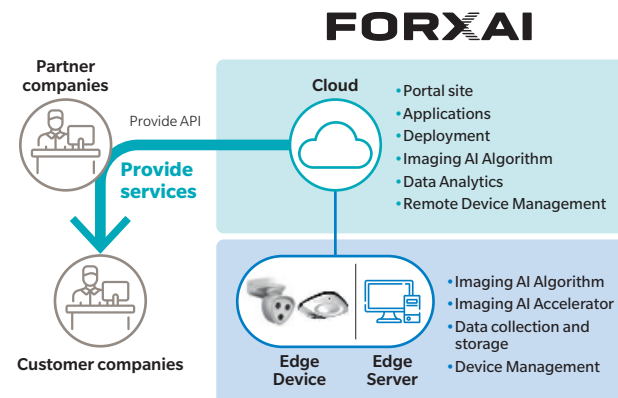
Message from a partner company

Solutions that identify individuals based on various attribute data and that track their movements are not new to the world. However, clothing color estimation as used in attribute identification has been a challenge, so the benefit of FORXAI is being able to use FORXAI's precision color calibration technologies to identify colors as being the same by calibrating for changes caused by the effects of lighting. Along with using this technology for traffic DX (parking lot congestion prediction) at retail facilities, we are considering implementing this solution in other lines of business, as well.

Yoshinori Kurihara
Deputy General Manager, Mobile Solutions Business Division
Marubeni Network Solutions Inc.

Medium- to long-term growth drivers

Precision medicine business growth strategies

Precision medicine business strengths and market forecast

Advancements are being made in personalized medical care in the U.S. and other countries in the face of population aging and other issues that have prompted a need for improved quality of life and reduced healthcare costs for people around the world. Precision medicine is currently a more than $40 billion market worldwide, and is expected to grow 16% annually on average[1] and is receiving increasing attention from investors. Companies are accelerating growth investment with the realization that gaining a competitive advantage in these markets depends greatly on how much diagnostic and analysis data can be collected and how quickly.
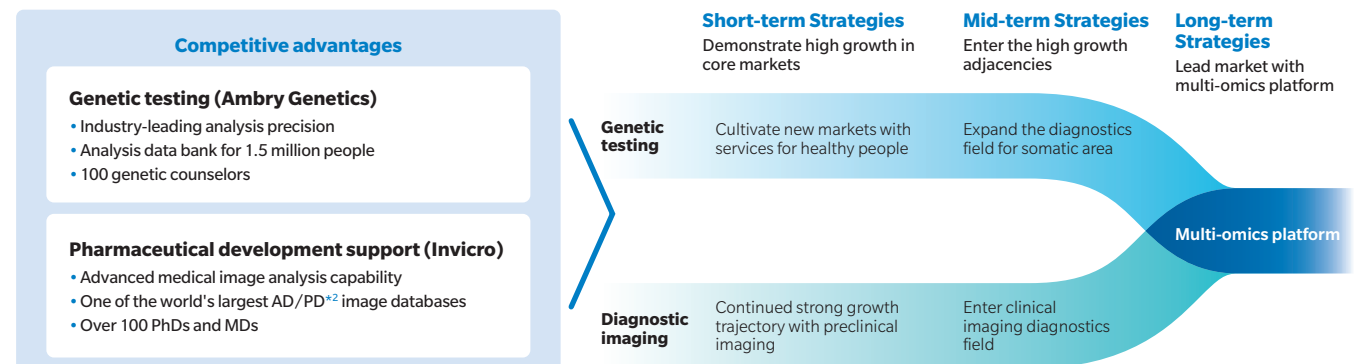
Against this backdrop, Konica Minolta Group operates the precision medicine business, utilizing the genetic analysis, organ image analysis, and high sensitive tissue testing technologies owned by U.S.-based Ambry Genetics, Invicro, and Konica Minolta, respectively. By analyzing the human body at the molecular level and performing high precision stratification, these technologies facilitate proper patient dosing and treatment and help boost clinical trial and pharmaceutical development success rates.

Because of their rarity throughout the world, companies with technologies for analyzing genes, organs, and proteins enjoy a competitive strength. Ambry Genetics and Invicro, in particular, have a first-rate technology suite and track record in the U.S. market, where precision medicine is making advancements.

Guided by short term, medium-term, and long-term strategies, Konica Minolta Group will maximize its strengths. In the short- to mid-term, we will focus on strengthening two core businesses—Ambry Genetics' genetic testing services and Invicro's image analysis services—and aiming for upgrading and expanding our services. Looking to mid- to long-term, we will bring together the bioscience and informatics technologies of these two companies to realize a multi-omics analysis service, which involves comprehensively analyzing the molecules in the human body, and provide this service to the world through a cloud-based platform. We plan to actively grow our businesses through such strategies.

[1] Source: BCC Research (2021). Biomarkers: Technologies and Global Markets

Short, medium and long-term strategies for the precision medicine business

Competitive advantages	Short-term Strategies Demonstrate high growth in core markets	Mid-term Strategies Enter the high growth adjacencies	Long-term Strategies Lead market with multi-omics platform
Genetic testing (Ambry Genetics) • Industry-leading analysis precision • Analysis data bank for 1.5 million people • 100 genetic counselors	**Genetic testing** — Cultivate new markets with services for healthy people	Expand the diagnostics field for somatic area	
Pharmaceutical development support (Invicro) • Advanced medical image analysis capability • One of the world's largest AD/PD[2] image databases • Over 100 PhDs and MDs	**Diagnostic imaging** — Continued strong growth trajectory with preclinical imaging	Enter clinical imaging diagnostics field	**Multi-omics platform**

[2] AD: Alzheimer's disease, PD: Parkinson's disease

Medium- to long-term growth drivers

Short-term Strategy: Growth of Core Businesses

Expand scope of genetic testing services to non-patients

Ambry Genetics has created many services new to the industry, which includes being the first to commercialize RNA testing. With a state-of-the-art, large-scale laboratory capable of processing 7,000 samples a day, the company continues to grow by providing genetic testing services for patients with cancer.

With a view to expanding the number of people receiving genetic testing to include non-patients, in 2019 Ambry Genetics launched its CARE Program™, a genetic testing services for people receiving regular health checkups. There are currently several million people in the U.S. who have not been tested for cancer yet at high risk. 650,000 tests were conducted in 2019, and the NCCN (National Comprehensive Cancer Network) Guidelines estimates that approx. 32 times that number of people—21 million—require testing. As genetic testing provided by healthcare providers to non-patients is a new market with few competitors, Ambry Genetics is expanding the service at a rapid pace.

Through the CARE Program, healthcare providers identify individuals with high hereditary cancer risk through Web-based interviews. They then recommend tests for high-risk individuals, who thereafter receive undergo counseling and tests at a hospital.

Based on the results, healthcare providers then propose cancer screening plan individually customized for the individual. Using IT, healthcare providers provide thorough support from recommending to the tests to educating individuals and conducting follow-ups. The user base has seen continued growth since the service was launched, increasing twofold between January and October 2020.

In April 2021, the CARE Program was also launched in Japan. Working with Seirei Social Welfare Community, which runs a number of hospitals in the country, we will roll out this service in stages throughout Japan.

Expanding pharmaceutical development support services in the central nervous system and cancer fields

Using advanced image analysis technologies powered by AI, Invicro provides pharmaceutical development support services that identify biomarkers, improve clinical trial efficiency, and decrease pharmaceutical development process risk. The company excels in services for the central nervous system, in particular, and boasts one of the world's largest image databases for Alzheimer's and Parkinson's diseases.

The number of clinical trials for Alzheimer's began to grow in 2020, and Invicro is focusing on leveraging this favorable opportunity to boost its track record. At the same time, the company is enhancing its pharmaceutical development support in the cancer field by applying its data management expertise and technologies developed through its central nervous system research.

Although Invicro currently provides services to mainly pharmaceutical companies, in the future it will broaden its service lineup for clinical settings.
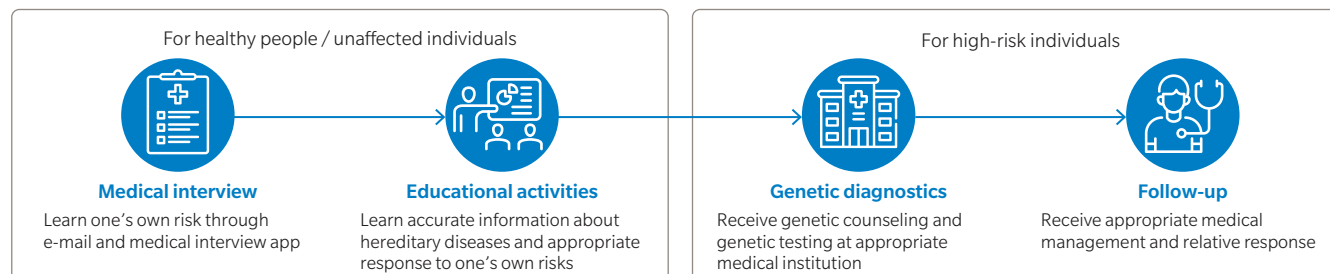
Message from a Business Partner

The Seirei Social Welfare Community has sought to achieve early detection of cancer and provide preventive treatment by conducting "personalized screenings based on gene mutation." By combining high-quality, precision technologies derived from Ambry Genetics' scientific findings with Seirei's know-how in providing healthcare and screenings, we have developed the SEIREI-CARE Program, Japan's first genetic diagnostics service. The benefits of this program are the ability to determine whether an individual has hereditary breast cancer or ovarian cancer risk through AI (chatbot) interviews, instead of face-to-face interviews to ask about individuals' medical and family histories that have previously been conducted by doctors, nurses, certified genetic counselors, and other healthcare professionals. Furthermore, I believe this program gives everyone accurate knowledge of genetic cancers and facilitates better awareness and education about hereditary cancers. We are also considering expanding the program to cover other cancers such as colorectal, prostate, and pancreatic cancers, as well as dementia. By getting as many people as possible to use this program, we hope to help people achieve a healthier, higher quality of life. We look forward to further R&D efforts by Konica Minolta and Ambry Genetics in order to grow this program into the future.

Takanori Fukuda
Director, Senior Executive Director, and Health Business Department Manager, Seirei Social Welfare Community

The CARE Program, a genetic testing service for healthy people / unaffected individuals

For healthy people / unaffected individuals

Medical interview
Learn one's own risk through e-mail and medical interview app

Educational activities
Learn accurate information about hereditary diseases and appropriate response to one's own risks

For high-risk individuals

Genetic diagnostics
Receive genetic counseling and genetic testing at appropriate medical institution

Follow-up
Receive appropriate medical management and relative response

Medium- to long-term growth drivers

Medium-term Strategy: Expansion of Diagnostic Menu

Expanding genetic testing services to cover non-hereditary cancers

Genetic testing for cancer has typically targeted hereditary cancers. In recent years, however, it has become possible to receive genetic tests for non-hereditary cancers, as well, due to advances in medicine and technologies, and companies are stepping up competition to develop such tests. The market for genetic testing for non-hereditary cancers conducted in clinical settings is expected to grow significantly between FY2019 and FY2024: 30-40% compared to the 2-5% for hereditary cancer tests.

Ambry Genetics will take this opportunity to commercialize genetic testing services for non-hereditary cancers. The company will achieve differentiated services by launching liquid biopsies (tests using blood, etc.) for diagnosis and treatment and high-

precision RNA liquid biopsies in short- to mid-term. Liquid biopsies are useful not only for diagnosing cancer risk but also when following up on treatment. As such, they can comprehensively support patients from the early detection stage through to recurrence prevention.

Ambry Genetics was the first to commercialize many services in the industry, and by using this strength it will build a groundbreaking testing service in the field of non-hereditary cancers, as well.

Working with research institutes to develop a cancer gene panel inspection

To strengthen its genetic testing for non-hereditary cancers, Konica Minolta is working with the University of Tokyo and

National Cancer Center Japan to develop a cancer gene panel inspection.

This inspection detects numerous gene mutations all at once. The goal of this effort is to bring together the advanced detection and analysis technologies of these two institutions with Ambry Genetics' expertise and establish a means of conducting an inspection of unprecedented precision and performance. This inspection will allow for identifying previously unidentifiable gene mutations and accumulating extensive inspection data, which will lead to improved data analysis precision and further support for pharmaceutical development and diagnoses. This next-generation panel inspection is slated to hit the market in or after 2022.

Areas of focus for Konica Minolta in oncogene testing
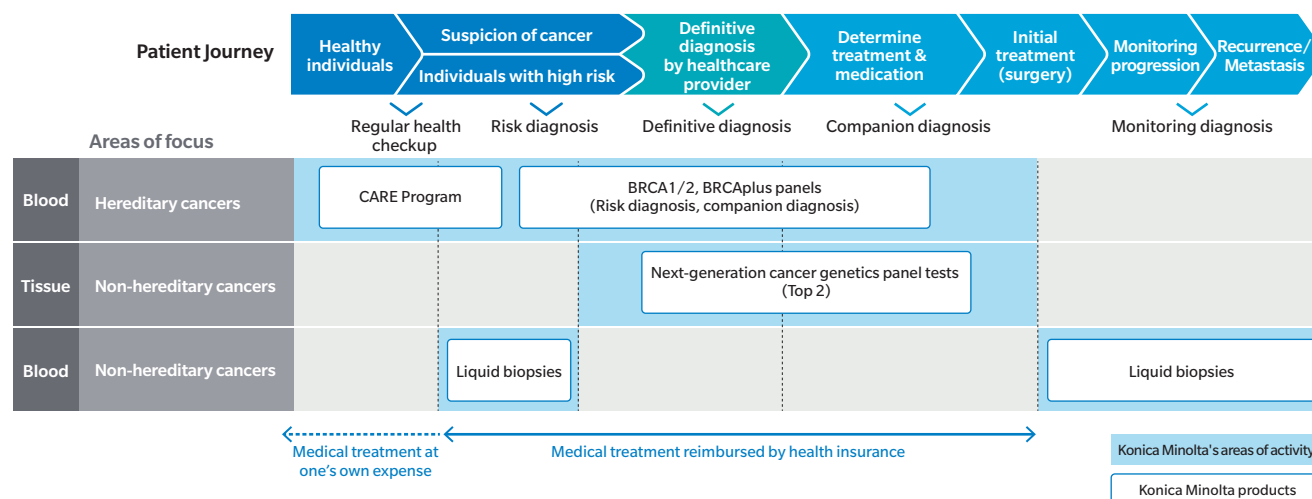
Message from a Development Partner

The University of Tokyo is working with Konica Minolta to commercialize the Todai OncoPanel, a proprietary cancer gene panel test, and further improve its performance. The Todai OncoPanel is one of the world's most state-of-the-art twin panels for analyzing both DNA (750 genes) and RNA (1418 genes). It allows for calculating scores related to gene mutation, amplification, and drug sensitivity, and for quantifying fusion genes, transcript variant, and gene expression level, all in one panel.

By collaborating with Konica Minolta Group, it will become possible to integrate diagnostic imaging that includes pathologies with genetic diagnostic technologies, and we expect to be able to bring world-leading next-generation precision medicine to the global market.

Katsutoshi Oda
Professor, Graduate School of Medicine, Division of Integrative Genomics, The University of Tokyo

Medium- to long-term growth drivers

Medium to Long-Term Strategy: Multi-omics Platforms

Providing a next-generation diagnosis platform through Group synergy

Multi-omics analysis is garnering attention as a key aspect of personalized medicine going forward. A method of analyzing various substances within the human body, including genes and proteins, all at once rather than individually, it can further enhance the quality of disease prevention, diagnosis, and treatment.

Konica Minolta Group has launched LATTICE™, a next-generation diagnostics platform that performs multi-omics analysis. Powering LATTICE is an expansive database built up by Ambry Genetics and Invicro.

In addition to analysis data for 1.5 million cancer patients, Ambry Genetics possesses precision genetic analysis data from RNA tests and high-quality analysis data provided by genetic counselors. This data is at the top of its class worldwide both in quality and quantity. Invicro has a vast store of data that includes image data for pharmaceutical development and clinical testing, as well as digital pathology images.

LATTICE has a plan to create its own unique value by pairing a wide range of medical information with the data of gene, pathology, and medical images within Konica Minolta Group and analyzing it all using AI.

Working with Amazon Web Services (AWS) to help achieve personalized medicine care worldwide

To operate LATTICE, Konica Minolta works with U.S.-based AWS, using the company's wide-ranging services and high-security cloud to provide services useful for pharmaceutical development, clinical trials, diagnosis, and treatment to hospitals and pharmaceutical companies around the world.

We have also signed contracts with third-party laboratories worldwide to provide consulting services for genetic analysis. Having a worldwide network of contracted laboratories would bring much more data into LATTICE, improving diagnosis accuracy and allowing us to provide even more useful information for

pharmaceutical development and clinical trials.

The principle target diseases are breast, prostate, and lung cancers, as well as Alzheimer's disease. With breast cancer, for example, since a patient's condition can be identified using only X-ray images currently, using LATTICE as well to add genetic information to an analysis enables earlier detection and more effective treatment.

We have received investment from AWS for this groundbreaking platform and will coordinate with the company over the next five years. Along with diagnoses and treatment in clinical settings, through LATTICE we are aiming to further contribute to discovering new biomarkers, developing new treatment methods, and accelerating pharmaceutical development.

Message from a Business Partner

One of the cornerstones of precision medicine is precision diagnostics, and we are excited to collaborate with Konica Minolta Precision Medicine, Inc. to enhance and accelerate their innovative offerings and help deliver precision diagnosis at a global scale using Amazon HealthLake. We're seeing a renaissance in the healthcare and life sciences industry as more organizations leverage cloud technology on AWS to uncover new ways to reduce cost, improve patient outcomes, and ultimately save lives.

Taha Kass-Hout
Director of Machine Learning, Amazon Web Services, Inc.

Next-generation diagnosis platform "LATTICE"

Laboratory network

Collect data from laboratories worldwide

Ambry Genetics' database | Invicro's database

Unified contact points
Industry standard security
Data composition, analysis, and reporting

LATTICE™
Multi Omics Platform

Quality management
Regulation response, compliance
Cutting-edge research tools and network of researchers

Cloud data base

Image | Pathology | Genetics
Health information | Clinical information

Pharmaceutical development and clinical trial
Pharmaceutical

Clinical care
Medical institutions

Environment Strategy

Message from the Group Executive

Dramatically Increase Contribution to CO_2 Reductions through DX

Takenori Takahashi
Corporate Vice President
General Manager, Corporate Sustainability Operations

Seeking to be carbon minus by 2030

Environmental problems such as climate change are urgent issues that have been brought up at G7 meetings. Companies have significant responsibilities in curbing environmental impact and creating sustainable societies. Konica Minolta expresses its strong determination to fulfill this responsibility in its long-term environmental vision looking ahead to 2050, Eco Vision 2050.

In 2009, Eco Vision 2050 set an ambitious target of reducing CO_2 emissions for the lifecycle of Konica Minolta products by 80% of fiscal 2005 levels by 2050. In 2017, the Company added the concept of Carbon Minus to signal its commitment to reducing society's CO_2 emissions to negative levels through its business, and expanded measures to encompass the entire supply chain. In 2020, Konica Minolta declared that it would achieve Carbon Minus in 2030, 20 years earlier than its deadline for meeting this goal.

We view Carbon Minus as an activity in which efforts to reduce CO_2 emissions at customers and suppliers surpass the Company's CO_2 emissions across the entire product lifecycle thanks to products and services offered by Konica Minolta.
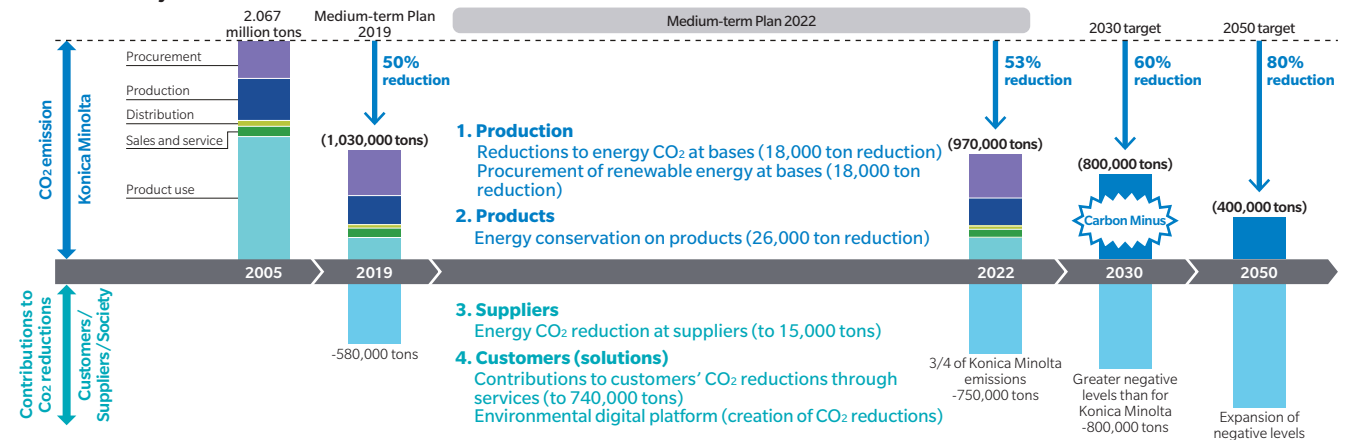
With the Company's business changing from products to services through DX, Konica Minolta will also shift to activities utilizing DX in its efforts to achieve Carbon Minus status. Konica Minolta calls this GX (Green Transformation).

To achieve Carbon Minus, Konica Minolta will accelerate its initiatives to reduce CO_2 emissions at every stage, including its own manufacturing, products, support for suppliers, and the provision of services to its customers. The Medium-term Sustainability Plan 2022, which was established at the same time as DX2022, lowers the emissions volume to 970,000 tons by reducing CO_2 emissions along the life cycle of Konica Minolta products by 53%. In addition, the Company is aggressively introducing renewable energy, and has set targets of 30% for 2030 and 100% by 2050. The target for fiscal 2022 has been raised from 6.5% in fiscal 2020 to 10%.

By helping suppliers and customers reduce CO_2, such as reforming customers' operating processes by introducing the Company's on-demand print system, Konica Minolta can increase its contributions to CO_2 reductions to 750,000 tons. These initiatives will enable the Company to bring its contributions to CO_2 reductions to three-fourths of its own CO_2 emissions.

Carbon Minus by 2030

Carbon Minus by 2030 chart. CO_2 emission (Konica Minolta) and Contributions to CO_2 reductions (Customers / Suppliers / Society).

Emission categories: Procurement, Production, Distribution, Sales and service, Product use.

- 2005: 2.067 million tons
- 2019: Medium-term Plan 2019 — 50% reduction — (1,030,000 tons); Contributions: -580,000 tons
- Medium-term Plan 2022
- 2022: 53% reduction — (970,000 tons); Contributions: 3/4 of Konica Minolta emissions -750,000 tons
  1. **Production** — Reductions to energy CO_2 at bases (18,000 ton reduction) / Procurement of renewable energy at bases (18,000 ton reduction)
  2. **Products** — Energy conservation on products (26,000 ton reduction)
  3. **Suppliers** — Energy CO_2 reduction at suppliers (to 15,000 tons)
  4. **Customers (solutions)** — Contributions to customers' CO_2 reductions through services (to 740,000 tons) / Environmental digital platform (creation of CO_2 reductions)
- 2030 target: 60% reduction — (800,000 tons) — Carbon Minus; Greater negative levels than for Konica Minolta -800,000 tons
- 2050 target: 80% reduction — (400,000 tons); Expansion of negative levels

Environment Strategy

## Collaborating with more companies through DX and making bold reductions in CO_2

Konica Minolta aims to collaborate with more companies using digital technology and achieve its challenging target of realizing Carbon Minus in 2030.

One of the key initiatives for this is DX Green Supplier Activities. Up until this point, Konica Minolta's environment and energy experts have visited customers and helped them with energy conservation diagnoses, but the Company has now developed a system that enables these diagnoses to be done automatically. After trial and error at several companies, the Company introduced the system on a full scale from fiscal 2020. By using a digital system, diagnoses can be done remotely. Compared to the previous approach of visiting in person, the Company expects to conserve even more energy with efficiency that is several times greater.

Another important initiative is the Environment Digital Platform, launched as an eco system to reduce environmental impact. In June 2020, 16 companies began activities, and the number of participating companies increased to 44 (as of the end of July 2021). The value provided by this platform can be roughly divided into three categories. First, participating companies hold discussions and use the information gathered at workshops in their environmental management. Second, the Navigation MAP, which compiles information that helps to improve environmental management, can be used to search for information when necessary. Third, when a solution with immediate efficacy is needed, companies are matched with a solution company that has the environmental technology and expertise.

Konica Minolta aims to raise efficiency by bringing together the wisdom of companies in different industries and using this information, while accelerating the resolution of environmental issues through an affiliation between companies, promoting co-creation and the development of innovations, and helping to resolve environmental issues on a global scale.

Environmental Digital Platform
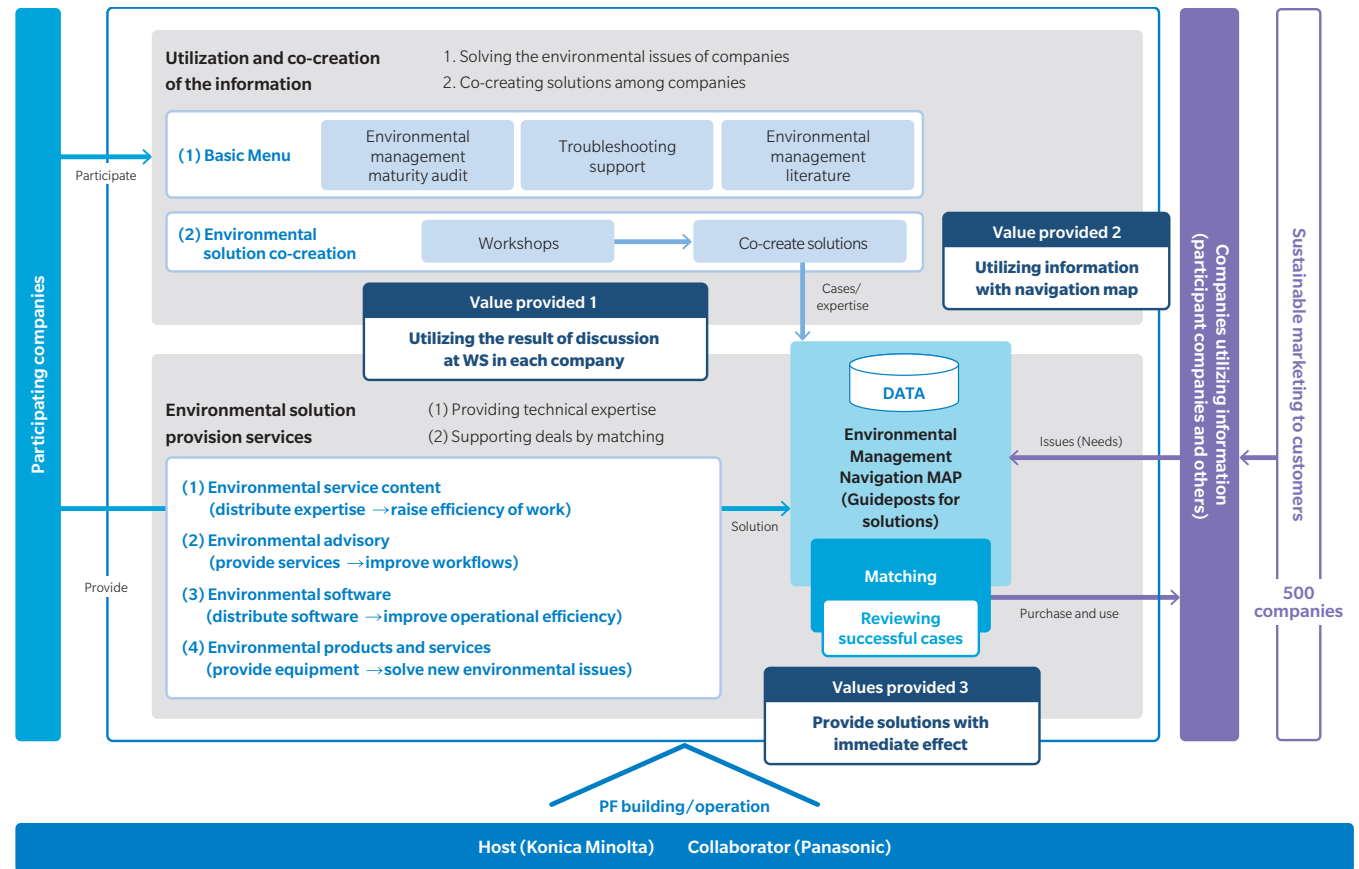
We are determined to achieve sustainable corporate growth by delivering on our three-year medium-term business plan. We will do this by pursuing collaboration with many different companies in order to bring about drastic reductions of environmental impact in society as well as drive our own growth.

Environment Strategy

Response to New Framework for Climate-related Financial Information Disclosure

1. Disclosure on four themes based on TCFD recommendations

Konica Minolta believes that accurately assessing the risks and opportunities related to climate in its business operations and actively disclosing information to investors and a wide range of other stakeholders is essential for a company capable of sustainable growth. In light of this, Konica Minolta agreed to support the final report, "Recommendations of the Task Force on Climate-related

Financial Disclosures," of the Task Force on Climate-related Financial Disclosures (TCFD), established by the G20 Financial Stability Board (FSB). The Group will disclose its climate change initiatives using the TCFD framework.

Subject	Activities
Governance	In 2008, Konica Minolta set the goal of reducing CO_2 emissions across the entire lifecycle of its products by 80% compared to fiscal 2005. This target was approved by the Board of Directors. In 2017, the company added a Carbon Minus target as part of its commitment to contributing, along with partner companies, to a carbon-neutral society. In addition, in 2020 the Board of Directors approved the inclusion of "addressing climate change" as one of the five material issues that Konica Minolta would address in its long-term management vision and the decision to move the Carbon Minus target date forward to 2030 as its goal for addressing climate change. At Konica Minolta, the president has the ultimate responsibility for and authority over climate change issues and is responsible for the effectiveness of environmental management, including climate change. The officers assigned by the president (Group sustainability officer) pursue environmental management and prepare medium-term plans, while also reporting every month to the president, chairman of the Board of Directors and the Audit Committee set up by the Board of Directors on issues including progress made with environmental management and climate change issues. The Audit Committee routinely monitors and reviews the status of the overall implementation of environmental management led by the president.
Strategy	As climate change predictions materialize and the global environment continues to substantially change, this will likely cause turmoil in the economic and financial sectors. Konica Minolta recognizes these to be significant risks to its business. At the same time, the company believes that, by helping to solve environmental issues through business activities, opportunities can be created that will promote the sustainable growth of the Group. By actively introducing cutting-edge technology and combining it with Konica Minolta's strengths in imaging-IoT technology and digital input and output, the Group is transforming itself into a digital company with insight into implicit challenges. In the long-term management vision formulated in fiscal 2020, "addressing climate change" was designated as one of the material issues and achieving Carbon Minus status by 2030 was set as a target. As Konica Minolta's offerings to clients shift from products to services, it aims to reduce CO_2 from services as well as CO_2 emissions from its products and turn this into business growth. By backcasting from this target and linking the medium-targets and annual plans on climate change measures to medium-term business plans for product planning, development, production, procurement and sales, Konica Minolta aims to achieve its Carbon Minus target while continuing to develop its business.
Risk Management	Konica Minolta carries out risk management so as to maximize returns while minimizing negative impacts and evaluates risks from a medium- and long-term perspective. In the short and medium term, environmental risks, including climate change, are viewed as management risks for the Group overall, and are managed by the Risk Management Committee. The Committee assesses and manages the impact and uncertainty of climate change risks from a medium- to long-term perspective in two scenarios: one in which a shift to a low-carbon society has taken place and one in which the impacts of climate change have materialized. The Group Sustainability Promotion Committee discusses plans and measures on the response to climate change at its quarterly meetings and also reassesses the extent of changes to risks twice a year. The Group Sustainability Officer report to the president on progress made with the plan every month. Important environmental issues are also reported by the Group Sustainability Officer to the core meetings and Risk Management Committee meetings, among others. The Board of Directors receives regular reports on the progress of the management plan for addressing climate change at their meetings, and they monitor the plan's execution.
Metrics and Targets	Konica Minolta has established its Eco Vision 2050, which sets the goals of reducing CO_2 emissions over the product lifecycle and achieving Carbon Minus status, as its metric for managing the risks and opportunities posed by climate change. The company aims to reduce CO_2 emissions across the product lifecycle by 80% by 2050 compared to fiscal 2005 levels. Konica Minolta reduced emissions by about 820,000 tons in fiscal 2020, achieving a 60% reduction. The Carbon Minus target that Konica Minolta has set is a commitment to reduce CO_2 emissions beyond Scopes 1, 2 and 3 by helping customers and business partners solve environmental issues and to cut CO_2 emissions by levels exceeding the CO_2 emissions from Konica Minolta products throughout their lifecycle. Konica Minolta aims to achieve "Carbon Minus" status by 2030. Moreover, given projections that the use of fossil fuels will no longer be possible in the future, Konica Minolta has set targets to adapt to climate-related risks, specifically using 100% renewable energy sources for the energy used in its business activities and bringing renewable energy use up to 30% by 2030 and 100% by 2050.

* See our Sustainability page (https://www.konicaminolta.com/about/csr/index.html) for details.

Environment Strategy

2. Konica Minolta's Climate-Related Risks and Opportunities

The Paris Agreement is a framework for addressing climate change that seeks to move the world more quickly and ambitiously to a low-carbon model. At the same time, there are concerns that the needed changes will not happen fast enough and climate change will have a harsh impact on the world. Konica Minolta is forecasting using both optimistic and pessimistic scenarios, as described below. It is identifying business risks that could adversely affect the performance of the Group in the future as well as business opportunities that can be created by proactively addressing the challenges of climate change.

	Impact on procurement	Impact on direct operations	Impact on product and service demand
Transition risks and opportunities	**Higher procurement and manufacturing costs** • Stakeholder demand for renewable energy procurement `Medium-term` `Short-term` • Replacing fossil resources and fuels in production `Long-term` • Response to emissions regulations and laws in line with measures to mitigate impact of climate change `Medium-term` `Short-term`		**Increase in product development costs** • Response to the market and new regulations on product energy efficiency in line with measures to mitigate impact of climate change. `Short-term` **Lower sales** • Decrease in office demand due to acceleration toward a paperless society `Medium-term` • Decline in product competitiveness due to unsustainable use of resource and non-reusable design. `Medium-term` **Higher sales** • Edge computing, which does not require a data center `Long-term` • On-demand production process to restrain wasteful production `Medium-term` • Connected workplaces that support diverse work styles `Medium-term` • Solutions for material processing process transformation to reduce energy use `Medium-term` • Leakage inspection system of pipelines including those carrying shale gas `Medium-term` • Ecosystem that supports corporate environmental and sustainability management `Medium-term` • Technology for upgrading recycled plastics `Medium-term`
Physical risks and opportunities	**Lower revenue due to a reduction in production capacity** • Uncertainty about procurement of paper materials due to abnormal climate and forest fires `Long-term` • Insufficient or interrupted supply of natural resources due to changes in climate patterns `Long-term` • Supply chain interruptions following large-scale natural disasters `Medium-term` • Depletion of water resources and restrictions on water intake `Long-term`		**Higher sales** • Image IoT and sensing solutions in preparing for abnormal climate and natural disasters `Medium-term` • Testing and drug discovery support for unanticipated diseases (including infectious diseases) `Medium-term`

Legend: ☐ Risks ☐ Opportunities