



# COMPANY PROFILE

A variety of corporate information is available on our global website.

Provides a general overview of the business, as well as information on corporate governance and other topics.

## NIKON REPORT

[https://www.nikon.com/about/ir/ir\\_library/ar/](https://www.nikon.com/about/ir/ir_library/ar/)



Introduces the company's commitment to realizing a sustainable society.

## NIKON SUSTAINABILITY REPORT

<https://www.nikon.com/about/sustainability/report/>



Includes product technologies, externally evaluated papers, and other results from our R&D activities.

## Nikon Research Report

<https://www.nikon.com/about/technology/rd/#nrr>



Progress Report on Medium-Term Management Plan FY2022 to FY2025 and scenes from the conference.

## Medium-Term Management Plan

<https://www.nikon.com/about/ir/management/midtermbusiness/>



## NIKON MUSEUM

The Nikon Museum showcases Nikon's history, products, and technologies at one site.

<https://www.nikon.com/company/corporate/museum/>



# A steady step into the light.

As we continue heading into the light,  
we gaze at the world lying before us  
and lay out a vision of Nikon's place in it,  
pursuing the value that society demands  
while facing the challenges that confront us.  
Our 100+-year history of taking on the future  
propels us forward, to the year 2025 and onward to 2030.  
Today, we forge ahead toward tomorrow,  
confident in the power of each step.

## OUR CORPORATE PHILOSOPHY

### Trustworthiness and Creativity

Our corporate philosophy is "Trustworthiness and Creativity."  
These are simple words, but they are not easily put into practice.  
These important words represent unchanging principles  
to which we will always be dedicated.

# A Vision Based on "Trustworthiness and Creativity"

Since its founding in 1917, Nikon has sought the limitless potential of light, continually providing new value to meet the expectations of its customers. It is this very history that is the wellspring of the Nikon brand, and the origin of the "Trustworthiness and Creativity" referenced in the corporate philosophy. In order to respond to the demands of society in times to come, we must use this history as a base to refine and further increase the value of the brand. To achieve this, in the Medium-Term Management Plan, "Where we will be in 2025" is described as "Providing Products and Services optimized to meet our customer needs." We have also established a direction for the entire company of strengthening delivery of solutions that integrate end-products, services, and components. We are currently working to further stabilize the main businesses of Imaging Products and Precision Equipment, where we have built our earnings base, while seeking to expand earnings in the strategic businesses of Healthcare, Components, and Digital Manufacturing, which are our generators of new value. Through these initiatives we aim to become a key technology solutions company in a global society where humans and machines co-create seamlessly, thus expanding the business and enhancing corporate value. Please continue to look forward to the future of Nikon.



Representative Director  
President  
**Toshikazu Umatate**

## OUR VISION

### Unlock the future with the power of light

Unleashing the limitless possibilities of light.  
Striving to brighten the human experience.  
Focused, with purpose, on a better future for all.

THIS IS THE ESSENCE OF NIKON.

# Medium-Term Management Plan (FY2022-2025)

Nikon set a goal of "Vision 2030," and has formulated the Medium-Term Management Plan (FY2022-2025) as the first phase to achieve that goal. We aim to sustain corporate value growth through initiatives in line with the Plan.

## Vision 2030

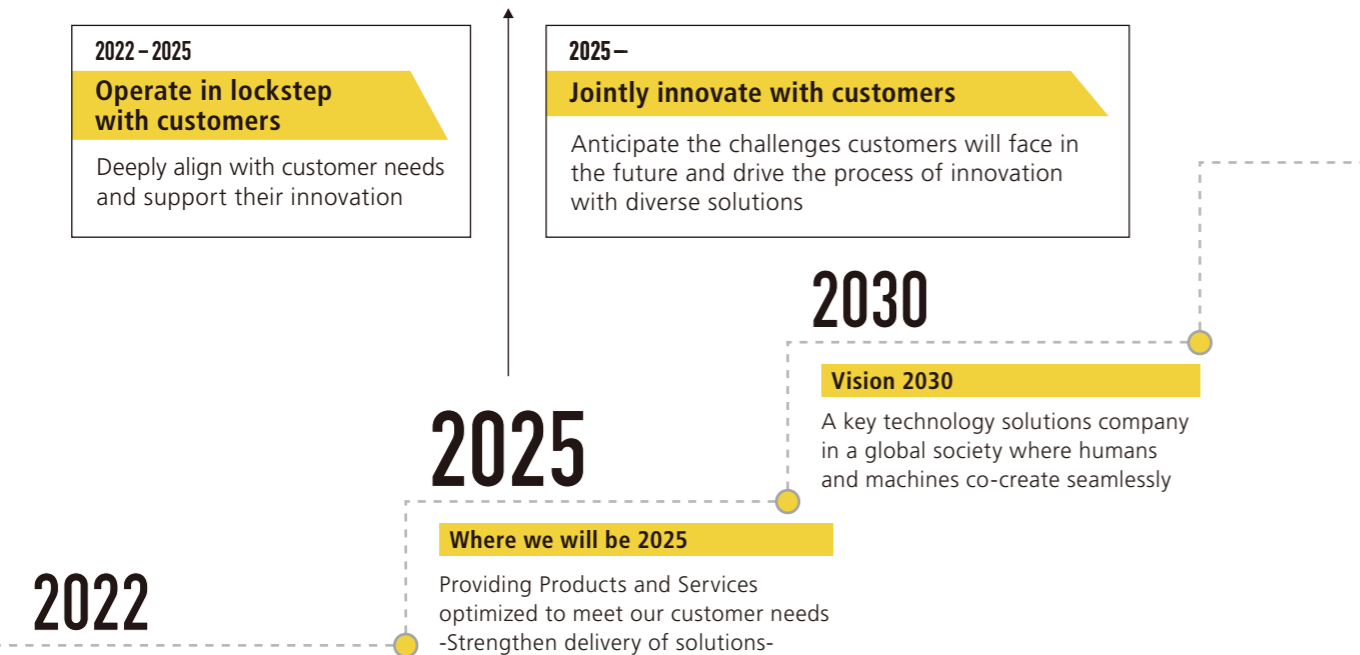
A key technology solutions company in a global society where humans and machines co-create seamlessly

Nikon will provide innovative technology solutions that anticipate and meet our global customer needs and contribute to a better sustainable world where humans and machines co-create seamlessly to solve societal challenges.

### [ Industry / Quality of Life ]

It is expected that great changes (megashifts) will occur in society in 2030, ranging from people's values to social frameworks such as climate change and technology. Nikon will identify the diverse needs of the society this produces, and stay ahead of the curve, contributing to society in two fields of value proposition.

## Steps to Get to Vision 2030



## An Overview of the Medium-Term Management Plan

[ Where we will be in 2025 ]

Providing Products and Services optimized to meet our customer needs

### Direction for the entire company

**Strengthen delivery of integrated solutions** to grow the business in a stable manner, expand both revenues and profits, and continually generate social and economic value

Main Businesses	Imaging Products	<b>Expand customer interactions and the value delivered to secure stable revenues</b> Positioning the two businesses of "Imaging Products" and "Precision Equipment" that have built an earnings base as our "Main Businesses," we will secure more stable profits by providing solutions that meet customer needs.
	Precision Equipment	
Strategic Businesses	Healthcare	<b>Create new value with customers in promising markets and areas of differentiation</b> We define the three businesses of "Healthcare," "Components," and "Digital Manufacturing" as "Strategic Businesses," and will work with customers to create new value and expand profits.
	Components	
	Digital Manufacturing	

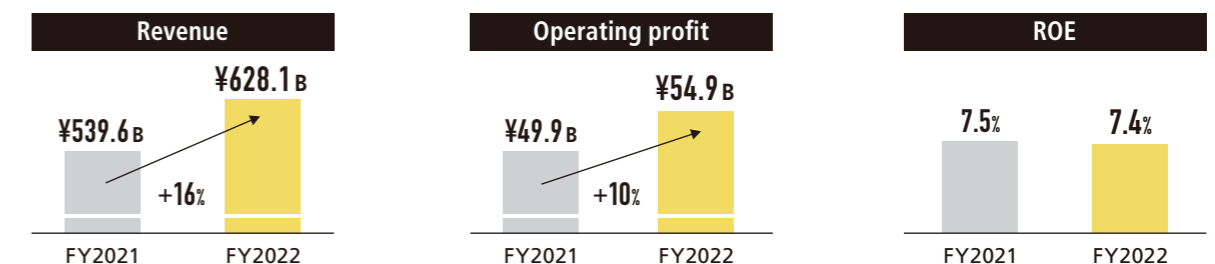
## FY2025 Financial Targets

We will increase strategic businesses that account for 35% of revenues, and achieve total revenue of ¥700.0B. In addition, we will sustain our Main Businesses and grow earnings in Strategic Businesses to achieve total operating margin of 10%, namely ¥70.0B or more.

Revenue	Operating margin	ROE
<b>¥700.0B</b>	<b>10%+</b>	<b>8%+</b>

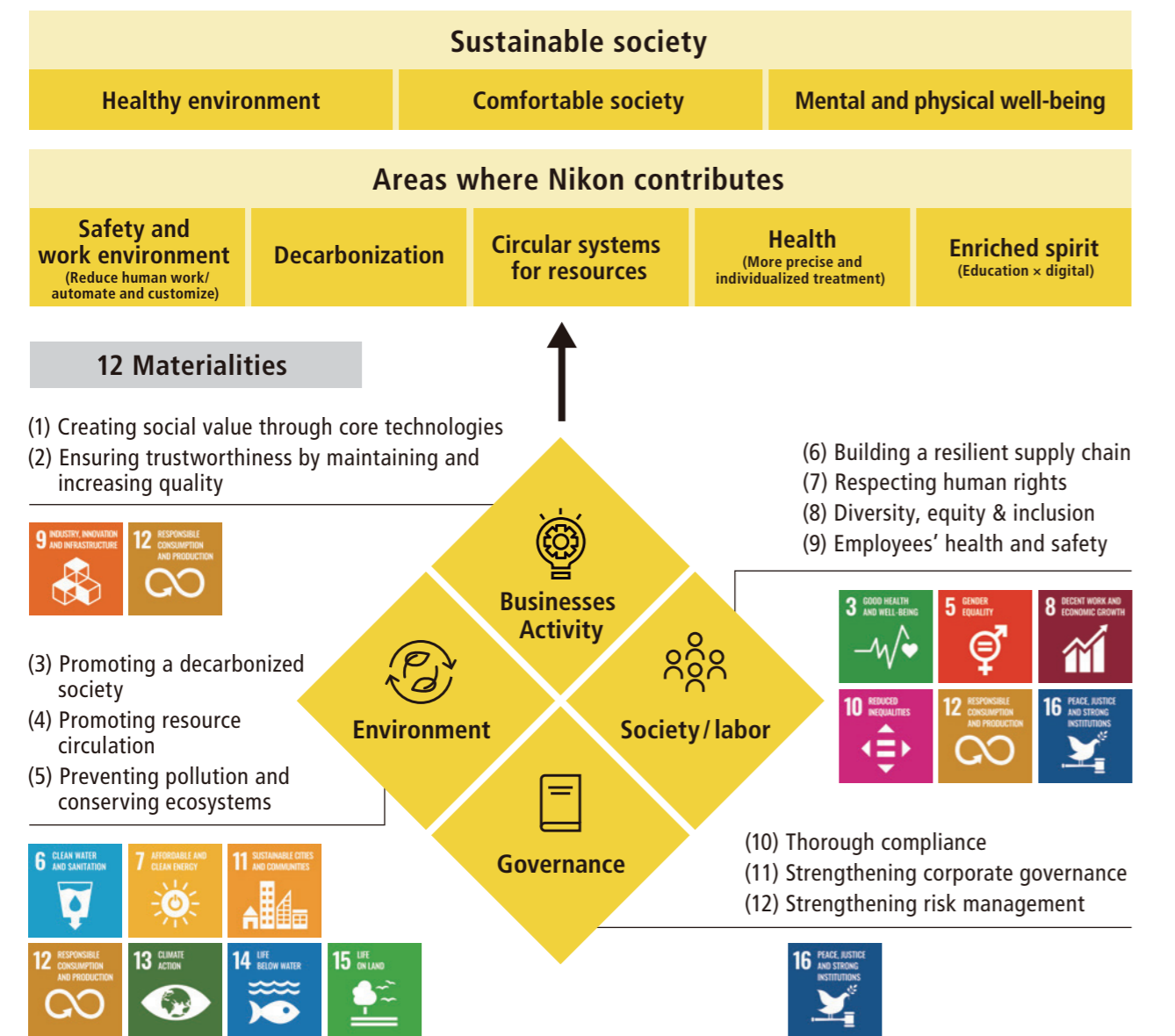
### Results from Year 1

Revenue and operating profit in FY2022, the first year of the Medium-Term Management Plan, exceeded forecasts.



# Nikon's Sustainability

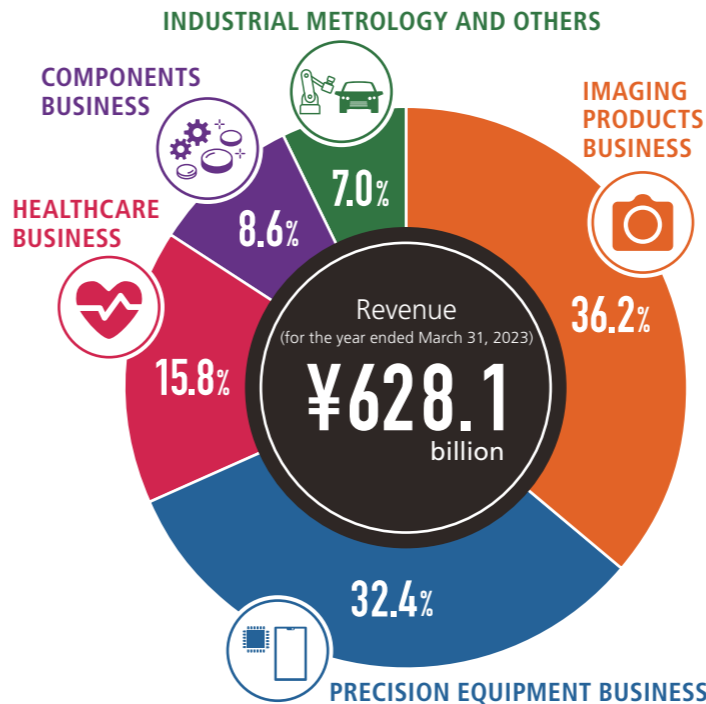
The Nikon Group aims to both contribute to a sustainable society and achieve sustainable growth for itself by putting into practice the Nikon philosophy of Trustworthiness and Creativity through our business activities. Specifically, by tackling 12 materialities in four areas of Business Activities, Environment, Society/labor, and Governance, we are committed to "create" value that contributes to solve social challenges and achieve Sustainable Development Goals (SDGs), and continually assess the impact our business has on the society, make improvements, and meet the expectations of society with "trust."



# Company Information

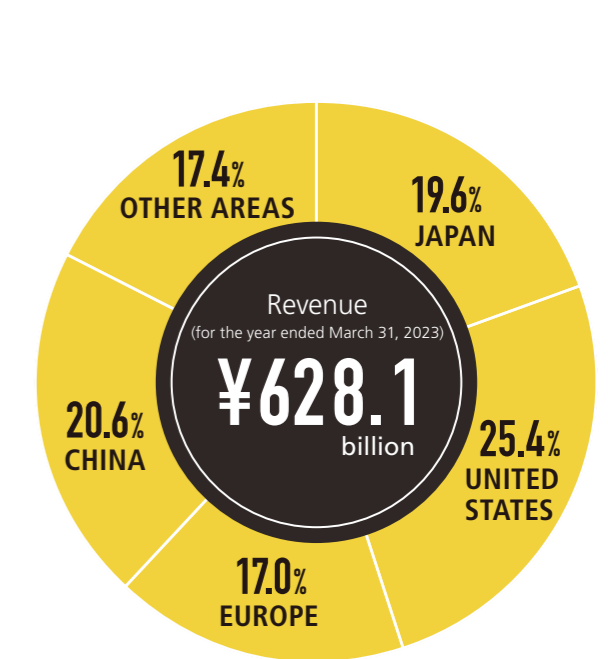
## Ratio of Revenue by Segment

(for the year ended March 31, 2023)



## Ratio of Revenue by Region

(for the year ended March 31, 2023)



\* As the business segments were changed in April 2023, the chart reflects the business segments in March 2023.

Nikon maintains a global presence with approximately 100 offices around the world, including in Japan, the United States, Europe, and Asia.



## COMPANY PROFILE

<b>Corporate Name</b>	NIKON CORPORATION	<b>Outline of Business</b>	Manufacture and sales of optical instruments
<b>Head Office</b>	Shinagawa Intercity Tower C, 2-15-3, Konan, Minato-ku, Tokyo 1086290, Japan Tel: +81-3-6433-3600	<b>Capital</b>	¥65.5 billion (as of March 31, 2023)
<b>Representative Director President</b>	Toshikazu Umatate	<b>Revenue (consolidated)</b>	¥628.1 billion (as of March 31, 2023)
<b>Date of Establishment</b>	July 25, 1917	<b>Number of Employees (consolidated)</b>	18,790 (as of March 31, 2023)
		<b>Plants (Nikon Corp.)</b>	Oi, Yokohama, Sagami-hara, Kumagaya, Mito and Yokosuka

Create value for society through businesses that are mindful of society and the environment

### [FY2025 targets toward carbon neutrality by FY2050]

- Reduce green-house gas emissions from business sites by 46.5% (compared to FY2013)

### [Progress in current SDG activities](as of August 2023)




- Reduced green-house gas emissions from business sites by 33.8% (compared to FY2013)
- Shift to 100% renewable energy starting in FY2023 at our core production plants in Tochigi (Japan) and Thailand
- Established a Nikon Global DEI Policy, for all global sites with the aim of management that leverages diversity
- Achieved 32.3% women among new graduate hires in FY2022 (Target: 25%); will focus on women holding 8% of managerial positions by FY2025

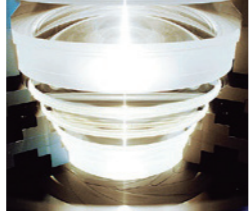



**Nikon offers a wide range of products and solutions, including cameras, FPD lithography systems, semiconductor lithography systems, microscopes, optical components, metal 3D printers, and measurement and inspection systems.**

Nikon provides a variety of products, services, and solutions worldwide, based on advanced opto-electronics and precision technologies cultivated over more than 100 years of history. To meet the diversifying and sophisticated needs of society with solid technical capabilities, we have established a flexible manufacturing system throughout the Nikon Group. Nikon will continue to contribute to the enrichment of daily life and society through the creation of new values, supporting the development of imaging culture and the realization of a super-smart society, as well as improving quality of life and assisting varied forms of manufacturing.

<b>Imaging Products Business</b> Creating a richer and more diverse imaging culture.	<b>Z 9</b> [Mirrorless Camera] Flagship mirrorless model with the highest still image, video functionality and performance in Nikon history.		<b>Z 8</b> [Mirrorless Camera] The high functionality of the flagship Z 9 condensed in a compact and lightweight body ensures nimble camerawork and excellent mobility.		<b>NX Field</b> [Remote Shooting System for Professional Agencies] Multiple cameras can be linked to support remote shooting and image transmission.		<b>WX 7 x 50 IF</b> [Binoculars] An ultra-wide field of view realized by combining Nikon's leading-edge optical technologies and a passion for manufacturing.	
	<b>D6</b> [Digital SLR Camera] Flagship SLR model meets professional needs with powerful AF performance and high-speed continuous shooting.		<b>NIKKOR Lenses</b> [Interchangeable Lenses for Cameras] Lens lineup includes NIKKOR Z lenses that realize a new dimension in optical performance and diverse NIKKOR F lenses.		<b>COOLSHOT PRO II STABILIZED</b> [Laser Rangefinder] Equipped with the STABILIZED function and red internal OLED display. Ease of measurement has been even further improved.		<b>MONARCH Fieldscope 82ED-S</b> [Fieldscope] Sophisticated optical performance ensures a sharp and clear field of view.	

<b>Precision Equipment Business</b> Contributing to the realization of a super-smart society.	<b>FPD LITHOGRAPHY BUSINESS</b>		<b>SEMICONDUCTOR LITHOGRAPHY BUSINESS</b>		<b>Litho Booster</b> [Alignment Station] Measures absolute grid distortion values quickly and with ultra-high precision for all wafers prior to exposure. Correction values are fed forward to the lithography system to ensure highly accurate overlay correction, contributing to improvements in semiconductor production yield and ROI (Return on Investment).		<b>AMI-5700</b> [Automatic Macro Inspection System] High-speed and high-sensitivity batch inspection of semiconductor wafers. Contributes to early detection of defects to meet the most challenging inspection requirements for today's semiconductor device manufacturers.	
	<b>FX-88S</b> [FPD Lithography System] Gen 8 Plate FPD Lithography System. Supporting panels for high value-added premium displays, such as smart devices, high-end monitors, and large TVs.		<b>NSR-S635E</b> [Semiconductor Lithography System] Developed for high-volume advanced node-application manufacturing. Equipped with the high-performance "inline Alignment Station (IAS)." Enables superior overlay accuracy and remarkable throughput.					

<b>Healthcare Business</b> Improving the quality of life of people around the world.	<b>AX with NSPARC</b> [Confocal based Super-Resolution Microscope] Enables everything from broad-range capturing of samples to capture and analysis of microscopic structures via super-resolution. Contributes to drug discovery and development as well as research fields such as brain science and immunology.		<b>ECLIPSE Ti2</b> [Inverted Research Microscope] Significantly contributes to the most advanced bioscience research.		<b>Cell &amp; Gene Therapy Contract Development and Manufacturing</b> Provides process development and manufacturing service for cells and gene therapy.		<b>Silverstone</b> [Ultra-Widefield Retinal Imaging Device with Integrated UWF-Guided Swept Source OCT] Capable of capturing an ultra-wide-field retinal image covering approximately 80% of the retina and a cross-sectional retinal image at any position in the ultra-wide-field image in one device.	
	*Attaches to the ECLIPSE Ti2-E inverted research microscope.							

<b>Components Business</b> Providing products and solutions related to various sectors such as robotics and space.	<b>DIGITAL SOLUTIONS BUSINESS</b>		<b>CUSTOMIZED PRODUCTS BUSINESS</b>		<b>GLASS BUSINESS</b>				
	<b>Optical components</b> Provides total solutions from design consulting to mass production of optical components.		<b>C3 eMotion</b> [Intelligent Actuator Unit] Joint units for collaborative robots that contribute significantly to the development and evolution of robot technology.		<b>LuFact</b> [Ultra-compact Machine Vision Camera] A machine vision camera based on proprietary image processing technology gained in long-term digital camera development.		<b>Optical systems for AKATSUKI</b> Designed and manufactured the optical systems for the lightning and airglow camera (LAC), 1µm camera (IR1), ultraviolet imager (UVI), and the lens of the 2µm camera (IR2).		<b>Photomask substrates for FPD</b> Provides high-quality, high-value-added FPD photomask substrates by fully utilizing our precision polishing, film-deposition and measurement technologies.

<b>Digital Manufacturing Business</b> Innovative manufacturing with material processing technology and measurement and inspection technology.	<b>ADVANCED MANUFACTURING BUSINESS</b>		<b>INDUSTRIAL METROLOGY BUSINESS</b>			<b>Other Businesses</b>	<b>OPHTHALMIC LENSES BUSINESS</b>				
	<b>"Lasermeister" Series</b> [Metal 3D Printer, Laser Removal Processing Machine] An extensive lineup is offered to meet a broad range of material processing needs, from metal additive manufacturing to marking, bonding, and high-precision removal of various materials.		<b>VOXLS 40 C 450</b> [X-ray and CT Systems] Achieves non-destructive, high-precision inspection and measurement of components ranging from compact electronics parts to large items such as aerospace components.		<b>APDIS</b> [Laser Radar] Performs non-contact 3D measurement of objects up to 50 m away.				<b>"NEXIV VMZ-S" Series</b> [Video Measuring Systems] Automatically measures the dimensions and shapes of a wide variety of parts with higher speed and precision.		<b>"Nivo-Z plus" Series</b> [Total Station] Precisely measures the distance and angle to the target object.

# Nikon technology is involved in many aspects of life and industry.

Nikon continues to provide a wide range of products and services to a wide variety of industries. These efforts are being deployed in five different businesses, bringing new technologies and ideas to various industries that support people's lives.



## Imaging Products Business

Contributing to the development of imaging culture by further expanding the possibilities for imaging expression.



### Shooting, viewing, editing, sharing. We hope to meet the expectations of all those who enjoy imaging expression.

Nikon inspires fun and passion through its Imaging Products Business. Nikon's camera lineup enables wide-ranging imaging expression to meet the expectations of a diverse community of users, ranging from professional photographers and video creators to first-time camera users. We also offer a variety of software that respond to a broad range of user needs, including NX Studio, which enables the seamless viewing and editing of still images and video; and NX Field, which enables multiple cameras to be linked for remote shooting. Further, Nikon's opto-electronics technologies are used in products from ultra-wide-field binoculars to fieldscopes, loupes, and laser rangefinders. Additionally, through initiatives such as hosting the Nikon Photo Contest, one of the world's largest photo and video contests, we contribute to the development of imaging culture by spreading the fun and excitement that imaging inspires around the world.



**Mirrorless Camera "Z 9"**

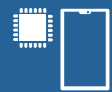
The first mirrorless camera flagship model, featuring the highest still image, video functionality and performance in Nikon history.



A lineup of mirrorless cameras, digital SLR cameras, and compact digital cameras, as well as interchangeable lenses that allow users to fully experience the joy of shooting.



A robust selection of advanced binoculars, fieldscopes, loupes, and laser rangefinders.



## Supporting the manufacturing of digital and smart devices that enrich people's lives.

A super-smart society is expected to transform our quality of life and work by utilizing IoT, AI, robotics, and information and communications technology. Flat-panel displays (FPDs), including LCDs (liquid-crystal displays) and OLEDs (organic LEDs), as well as semiconductor devices are indispensable for realizing such a society. Nikon produces the lithography systems that expose circuit patterns for such components, covering development, design, production, sales and services. We supply FPD lithography systems featuring a unique multi-lens system for producing large panels used in TVs as well as small- and medium-sized panels used in smart devices. In addition, we provide semiconductor lithography systems, deemed "the most precise machines in history," which offer precision down to around 1 nm\*. And their high productivity satisfies a variety of demands, such as for miniaturization and higher integration of semiconductor devices. Through these initiatives, Nikon's Precision Equipment Business contributes to the realization of a super-smart society.

\*1 nm: one-billionth of a meter.



**FPD Lithography System "FX-885"**

Gen 8 Plate FPD Lithography System. Supporting panels for high-value-added premium displays, such as smart devices, high-end monitors, and large-screen TVs.



**Semiconductor Lithography System "NSR-5635E"**

Developed for high-volume advanced node-application manufacturing. Equipped with the high-performance "inline Alignment Station (IAS)." Enabling superior overlay accuracy and remarkable throughput.



**Alignment Station "Litho Booster"**

Measures grid distortion values quickly for all wafers prior to exposure. Feed-forward enables highly accurate overlay correction, contributing to improvements in semiconductor production yield and ROI (Return on Investment).



## Providing solutions that contribute to the resolution of various issues in the fields of bioscience and medical care.

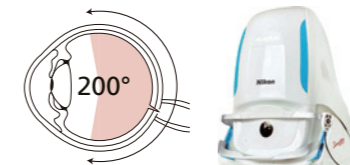
The Healthcare Business comprises three solutions based on Nikon's core technologies in advanced optics and image processing and analysis. "Life Science Solutions" contribute to progress in the fields of bioscience research and drug discovery by making it possible to visualize and analyze various biological events using our microscope technology, which has about 100 years of history. "Eye Care Solutions" provide ophthalmology instruments and systems based on proprietary technology that contribute to early detection of eye diseases and improvement of quality of life. "Contract Cell Development and Manufacturing" provides a broad range of contract development and manufacturing services for cell and gene therapy in Japan. In an era of increasing human longevity, Nikon aims to support the health and well-being of as many people as possible in a society where people lead longer, healthier lives.



**Confocal based Super-Resolution Microscope "AX with NSPARC"**

Capable of capturing a wide and highly detailed range of biological phenomena, including in deep tissue. In addition to drug discovery and development, contributes to the understanding of disease mechanisms related to cranial nerves, cancers, and other diseases, and further expands the scope of potential research.

\*Attaches to the ECLIPSE Ti2-E inverted research microscope.



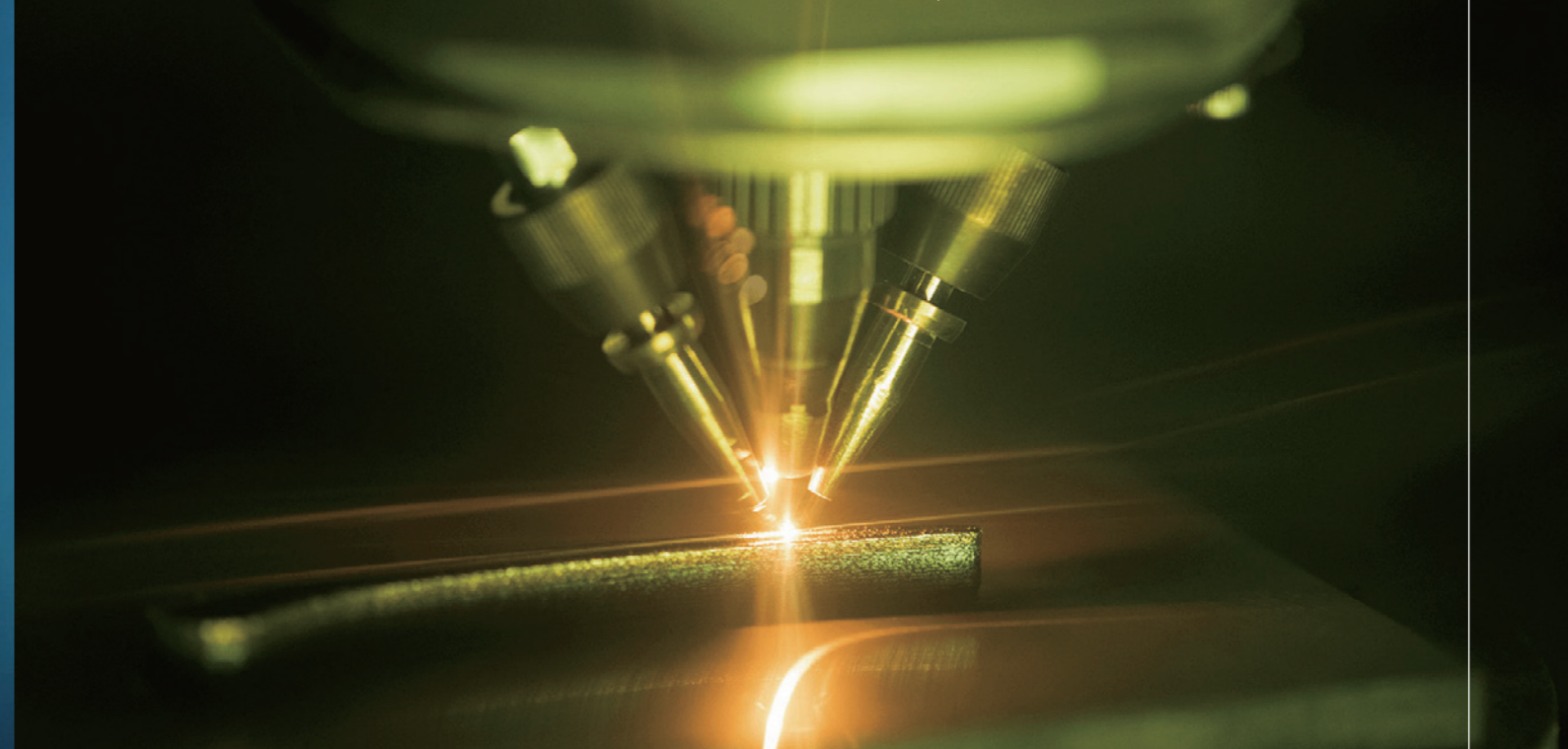
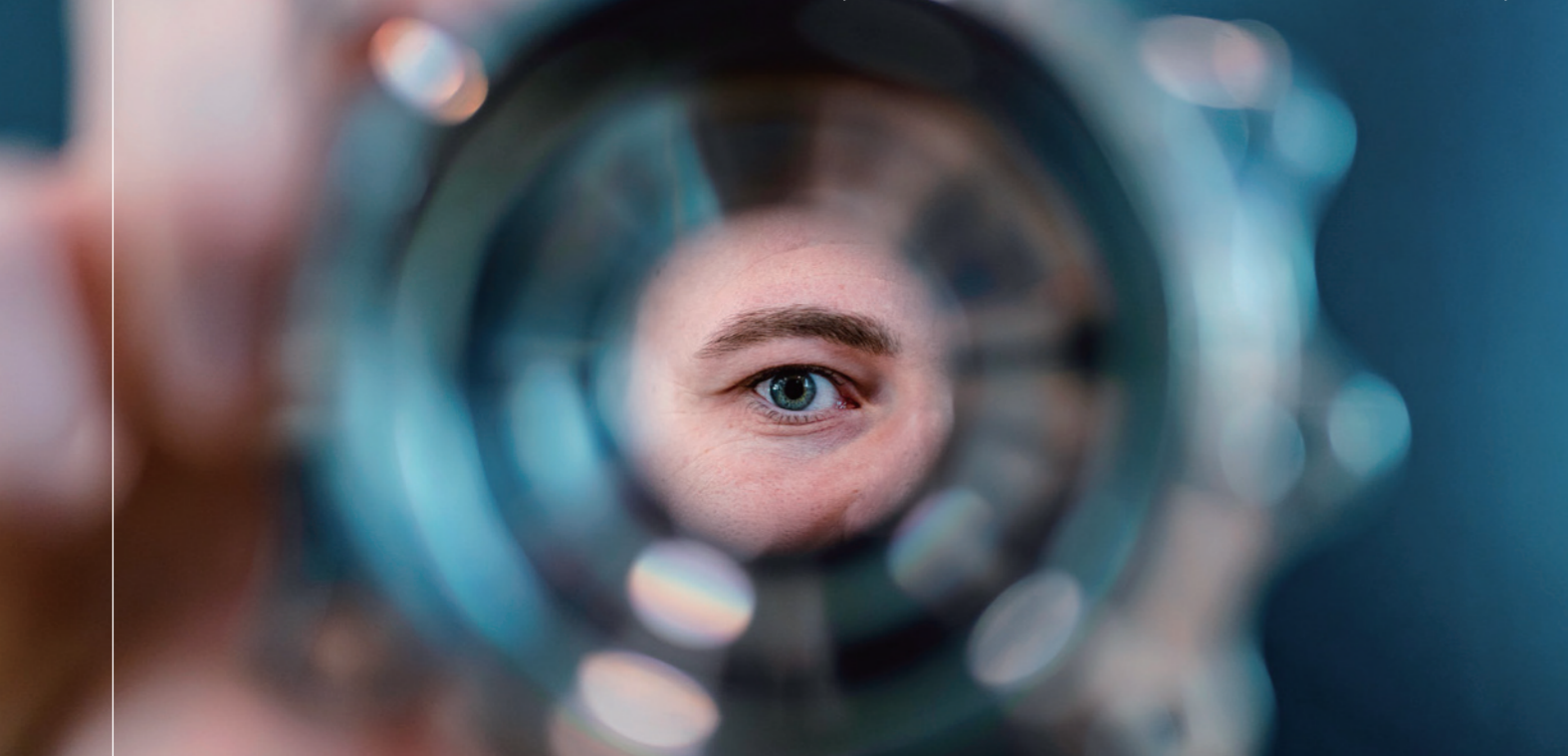
**Ultra-Widefield Retinal Imaging Device with Integrated UWF-Guided Swept Source OCT "Silverstone"**

Capable of capturing an ultra-wide-field retinal image covering approximately 80% of the retina and a cross-sectional retinal image at any position in the ultra-wide-field image in one device.



**Cell & Gene Therapy Contract Development and Manufacturing**

Providing world-class contract services to pharmaceutical and bio venture companies.



**From optical component production to the development of custom-made products. Contributing to the evolution of industry and technology.**

The Components Business comprises three businesses: Digital Solutions, Customized Products, and Glass. The Digital Solutions Business comprises a variety of businesses, including optical materials and components, and encoders that detect the rotation angle of the joints of industrial robots. There is also the Customized Products Business, which designs and manufactures custom-made products, ranging from cutting-edge space technology development to EUV-related components and inspection equipment for food industry; and the Glass Business, which manufactures FPD photomask substrates. Through these wide-ranging businesses, Nikon contributes to the development of society, industry, and science and technology.

**Meeting a wide range of automotive and aerospace needs for material processing, as well as measuring and inspecting semiconductors and electronic components.**

The Digital Manufacturing Business innovates manufacturing with high-precision materials processing technology and measurement and inspection technology. Through optical processing machines including the Lasermeister series, various processing of materials, such as additive or removal processing, becomes highly precise yet simple. Moreover, measurement and inspection technology such as X-ray and CT Systems, Laser Radar, and Video Measuring Systems contribute to the automation of production processes and the improvement of work efficiency and product quality. These technologies respond to a wide range of needs in the manufacturing industry and generate innovative solutions for maximizing the value and potential of digital manufacturing.



**Ultra-compact Machine Vision Camera "LuFact"**  
A machine vision camera based on proprietary image processing technology gained in long-term digital camera development.



**Intelligent Actuator Unit "C3 eMotion"**  
A joint unit for a collaborative robot that integrates a motor, speed reducer, driver, brake and encoders.



**Foreign Material Inspection System for the Food Industry**  
Uses spectroscopic technology and AI to detect organic substances. (Foreign material inspection system for jam and fruit spreads developed jointly with AOHATA Corporation to enable automatic inspection of foreign material and impurities in the jam and fruit spread manufacturing process)



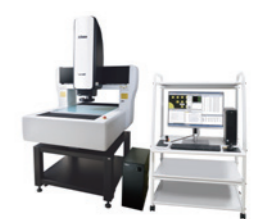
**Metal 3D Printers and Optical Processing Machine "Lasermeister" Series**  
An extensive lineup responds to a broad range of material processing needs, from metal additive manufacturing to marking, bonding, and high-precision removal of various materials.



**X-ray and CT Systems "VOXLS 40 C 450"**  
Quickly performs internal defect analysis and shape measurement of a wide variety of inspection targets. Also supports cutting-edge manufacturing such as the production of lithium-ion battery modules for electric vehicles (EV).



**Laser Radar "APDIS"**  
Contributes to improved productivity by enabling non-contact 3D measurement of objects ranging from small automobile parts to large aircraft assemblies.



**Video Measuring Systems "NEXIV VMZ-S" Series**  
Ensures quick and accurate automatic measurement of complex-shaped test objects such as electronics for automotive applications and semiconductor components.



# Open Innovation

## Creating new businesses in a variety of ways, including business-accelerating partnerships.

Nikon is actively partnering with a variety of companies to create new businesses and expand existing ones. One example is our welcoming of SLM Solutions Group AG of Germany, SLM, a leading international provider of metal 3D printing solutions, to our Group in 2023. In April 2022, we began operation of Nikon Creates Corporation and fully entered the next-generation imaging content business in a bid to contribute to the further development of imaging culture. By combining our core technologies with external resources, we are accelerating the launch of new businesses. And with a view to expanding our business field, we are pursuing the creation and development of new businesses, including strategic investments through a private fund and cooperation with venture capital partners.

### Alliances

Nikon is building a variety of alliances, including business/capital tie-ups outside the company with universities, other companies and affiliates, cooperative research, and M&A. In these ways, Nikon is leveraging its strengths to expand the scale and scope of its businesses, including by extending its interests to peripheral fields to create new business opportunities. In recent years, by entering into new alliances with businesses that will drive future growth as a core pillar, we have been actively promoting the development of new equipment and the expansion of sales opportunities.

#### Recent examples

- Acquisition of SLM Solutions Group AG, Germany, a leading metal 3D printer company
- Majority ownership acquisition of Morf3D Inc., USA
- Collaboration with Oxford Nanopore Technologies Limited, UK
- Strategic joint development agreement with bionic surface technologies GmbH, Austria

### Private fund

Nikon and SBI Investment Co., Ltd. have jointly established a private fund to invest in venture companies, leveraging SBI Investment's valuable expertise and investment experience in growth sectors. Nikon deploys this new fund to pursue fresh business opportunities by investing in venture companies that can potentially play a future role, with a focus on Japan and North America as well as European and Asian countries.

#### Investment fields

- Aerospace ■ Carbon neutral
- Smart city ■ Material processing
- Sensing ■ AI and image processing
- IoT ■ Optics ■ Digital manufacturing
- Vision systems/robotics ■ Healthcare

### Cooperation with venture capital partners

To expand new business operations, Nikon has invested in venture companies in Japan, Europe and the United States, each of which provides Nikon with valuable transaction data and trend information as well as exchanging diverse information at regular meetings. Nikon benefits from its venture business partners' research, comparisons, target company information and future value estimations.

#### Major companies invested in

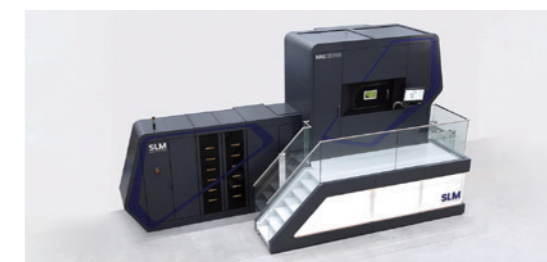
- SBI Investment ■ Geodesic Capital ■ Beyond Next Ventures
- 500 Startups Japan ■ Corundum Open Innovation, and more



## TOPIC 1

### Acquisition of SLM Solutions Group AG as a subsidiary to further promote our Digital Manufacturing Business.

Following an industry-leading position since the dawn of metal additive manufacturing (AM), SLM Solutions Group AG (SLM), a leading German metal 3D printer company, has been supporting the long-term success of its diverse clientele. Nikon, together with SLM, which has been welcomed into the Group, will work together to speedily offer unique metal AM solutions to our customers in an extensive range of industries worldwide.

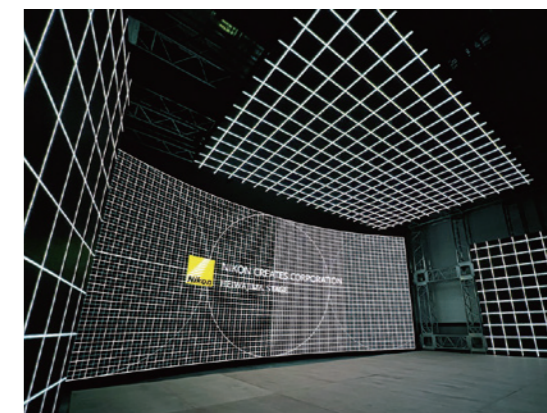


SLM's flagship product "NXG XII 600"

## TOPIC 2

### Aiming for co-creation of new imaging values, Nikon Creates Corporation fully opens its "Heiwajima Stage" filming complex.

Nikon Creates Corporation engages in various aspects of next-generation imaging content, from planning to production. Its new filming complex, "Heiwajima Stage," is now fully open. Virtual production, which is a way of filming that allows actual filming locations to be reproduced in the studio by projecting images on a large LED screen, and Volumetric video, a technology that faithfully reproduces "3D data of people and other objects" and "3D data of the motion" and converts them into 3D video data, will be brought together in a single shooting facility. We aim to fuse the sensibilities of innovative creators with the latest video technology to co-create new forms of imaging expression.



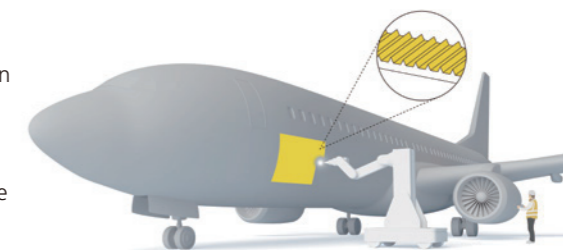
The Company Profile Concept Movie by Nikon Creates Corporation can be viewed here. The cover image was photographed and produced at the same time as this video.



## TOPIC 3

### Improvement of environmental performance of aircraft with sharkskin-inspired Riblet processing\*1.

Riblet processing creates fine grooves on the surface of an object to reduce friction resistance to air, water, etc. Nikon provided film with this processing to ALL NIPPON AIRWAYS CO., LTD. (ANA), which became the first company in Japan\*2 to apply the film to an aircraft on a trial basis and commence operations. Nikon, together with Japan Airlines Co., Ltd. (JAL), the Japan Aerospace Exploration Agency (JAXA), and O-WELL CORPORATION, also conducted the world's first\*3 demonstration flight tests using aircraft with the fuselage directly processed with riblets. The data obtained from these tests will be utilized to reduce energy loss and CO2 emissions.

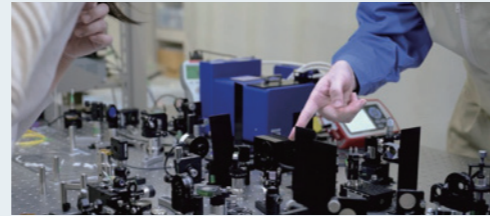


\*1: Riblet: Fine groove structure conceived with the idea that the resistance of water is reduced by the sharkskin shape. By forming a fine groove structure on the exterior panel of an aircraft along the air flow during flight, drag during flight can be reduced.  
 \*2: In the released aircraft as of October 3, 2022, according to ANA.  
 \*3: In the operated aircraft as of February 28, 2023, according to JAL, JAXA, O-Well, and Nikon.

# Research and Development

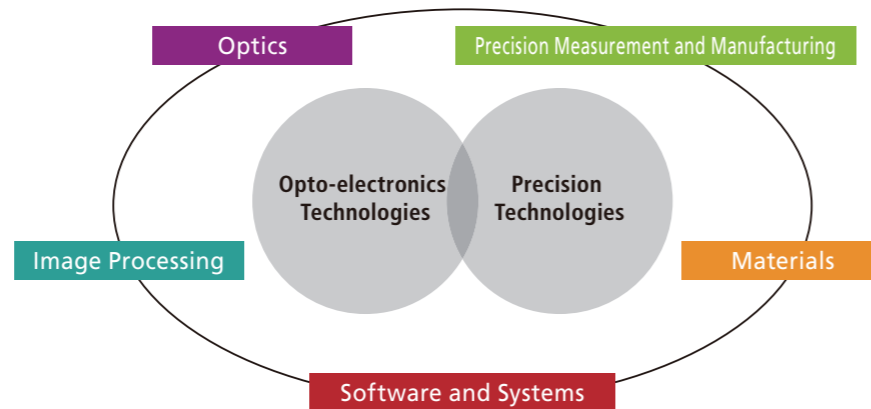
**Nikon's proprietary perspective, as well as research and development, create a new future and value.**

Nikon will continue to formulate and implement the necessary R&D plans to provide products and services optimized to meet their customer needs toward Vision 2030, as indicated in its Medium-Term Management Plan. Not only will Nikon work on optical technologies that support Nikon, as well as on elemental technologies such as product and production technologies of current businesses, but also on the R&D necessary to realize businesses that will serve as growth drivers through collaboration among the various organizations.



## Basic technologies that support Nikon

To strengthen Nikon's existing businesses and create new ones, it is vital to continue basic R&D activities based on a long-term perspective. With opto-electronics and precision technologies as the foundation, Nikon is conducting R&D in a wide range of technologies including optics, precision measurement and manufacturing, image processing, materials, and software and systems.



## Nikon Research Report: Introducing the results of Nikon's R&D activities

Nikon disseminates the results of its R&D activities based on its core opto-electronics technologies and precision technologies in the Nikon Research Report. This technical report focuses on technologies incorporated in new products and technologies

highly evaluated by academic societies and other organizations, and highlights Nikon's unique, advanced technological capabilities and corporate value. For details, please refer to the website from the URL listed on the back cover.

## Technology Strategy Committee

In accordance with the company-wide medium/long-term plan, this committee works on establishing the direction of technological development and priority investment areas, while clarifying technology strategies that will aid in developing new areas of focus and enhance the competitiveness of our current businesses. Nikon

will aggressively respond to the issues and needs in the two fields of value proposition of "Industry" and "Quality of Life," and aim for Nikon's long-term growth by promoting the technological development necessary for the Main and Strategic Businesses outlined in its FY2022-2025 Medium-Term Management Plan.

# Manufacturing

**Consolidating technologies and increasing productivity. Synergy-driven Monodzukuri (manufacturing).**

Nikon aims to contribute to the prosperity and convenience of people's lives through Monodzukuri (manufacturing) based on "customer-focused" and "quality-first" fundamentals. While remaining constantly aware of these fundamentals, we will promote rebuilding of the production system of the entire Nikon Group and improvement of productivity. We have also established the Advanced Technology Research & Development Division, the Optical Engineering Division, the Next-generation Project Division, and the Production Technology Division as entities that provide cross-organizational support to each business unit, and we will create new added value through manufacturing from a Company-wide optimal perspective that transcends business units.



## Monodzukuri (manufacturing) structure

With the goal of increasing productivity across the entire Nikon Group, Nikon is implementing various reforms. In 2017, production functions of the optical units were concentrated at Tochigi Nikon Corporation. In 2021, Sendai Nikon was transferred from the Imaging Business Unit (BU), Tochigi Nikon Precision Co., Ltd. from the Semiconductor Lithography BU, Miyagi Nikon Precision Co., Ltd. from the FPD BU in 2023, thus moving all domestic production

subsidiaries under the umbrella of the Production Division. This consolidation has enabled us to create new value by integrating various technologies and know-how cultivated in the B to B and B to C businesses, and achieve effective utilization of production-related resources with a comprehensive overview of all BU. Furthermore, we will promote productivity improvement throughout the entire Nikon Group by leveraging digital manufacturing.

## Monodzukuri (manufacturing) technology

Nikon is proceeding with the ongoing strengthening of the core technologies that support its manufacturing and the creation of differentiated technologies that will lead to future products and services. The sources of Nikon's technology are "opto-electronics technologies" and "precision technologies." We conduct research and development with a long-term perspective in a wide range of

fields, including optical technologies, precision measurement and processing technologies, image processing technologies, material technologies, and software/systems technologies, based on "opto-electronics technologies" and "precision technologies." Nikon also puts great effort into passing on these technologies and skills to continuously offer products and services that are of value.

## Initiatives to improve QCD (Quality, Cost, Delivery)

Nikon has introduced and strengthened a common quality management system and production technology to ensure that all products manufactured at all of its production locations are of the same "Made by Nikon" quality worldwide. To accurately

meet customer requirements not only for quality, but also regarding cost and delivery, Nikon is carrying out improvement activities from various perspectives such as development, design, procurement, manufacturing, and quality.