

Materiality 1

Creating Social Value Through Core Technologies



Reason for Priority

Companies are considered public institutions and have a responsibility to contribute to the sustainable development of society through transparent and fair business activities.

Moreover, in recent years, amidst the emergence of social issues of global importance, companies are required to innovate in ways that will transform social systems and lifestyles, and to contribute to solving these issues through their businesses.

Nikon's Approach

Imagine society in 2030, it is likely that not only will people's values, lifestyles, and outlooks on life shift, but so too will social frameworks on topics like climate change and resource scarcity shift. Furthermore, there will likely be an accelerated shift in technologies, such as with the advent of Industry 5.0. In the midst of this mega-shift, we believe that people will focus more on creative, self-fulfilling work and value-driven consumption, and that there will be greater co-creation between humans and machines.

In April 2022, Nikon announced a new Medium-Term Management Plan in which its Vision 2030 (for the year 2030) is to become "a key technology solutions company in a global society where humans and machines co-create seamlessly." Over its 105 years of history, Nikon has cultivated ultra-precise *Monodzukuri* (manufacturing) capabilities, eminently present in its lithography systems. It has also cultivated a brand that has popularized digital cameras worldwide and greater trust among its stakeholders. Leveraging these strengths, we will provide solutions closely tied to customer experience value and the generation of innovation, and expand possibilities for people in a world where humans and machines co-create more seamlessly. We will also contribute to the realization of a prosperous and sustainable society by providing innovative value that will help address societal and industrial challenges, including those presented in the SDGs.

Goals for the Fiscal Year Ending March 2031 (What Nikon Intends to Achieve)	What Nikon Needs to Do	Related SDGs	Targets for the Fiscal Year Ended March 2022	Scope	Results
Creation of social value through core technologies and contribution to the sustainable development of society, as a leading company in precision and optics	Aim to help build a prosperous, safe society by creating social value through the strengthening and effective utilization of opto-electronics technology and precision technology, which are Nikon's core technologies	9.4 9.5	Start research that integrates Nikon's microscope solutions with Oxford Nanopore Technologies Limited's DNA and RNA sequencing technology	Nikon	Launched joint research combining the technologies of Nikon and Oxford Nanopore Technologies Limited
	Contribute to resolving social issues through Nikon's products and services		Complete initial trial calculations of anticipated power generation equipment efficiency improvements and CO ₂ reduction impact using riblet processing technology from Nikon's Material Processing Business	Nikon	Completed initial trial calculations of power generation efficiency improvements and CO ₂ reduction impact using riblet processing technology. Also, submitted a paper on riblet processing effects to the Gas Turbine Society of Japan and the U.S.-based SciTech Forum

Nikon's Social Value Creation

Contributing to Society through Business Activities

Approach and Policy

The Nikon Group aspires to be a company that contributes to the sustainable development of society through the creativity of new value through its businesses, based on its Corporate Philosophy of *Trustworthiness and Creativity*. In its Sustainability Policy, We are committed to helping solve environmental and social challenges and achieve Sustainable Development Goals (SDGs) through our business activities by delivering unique Nikon products and services. In addition, we have selected "Creating Social Value through Core Technologies" as a materiality. To put this into practice, in April 2022, Nikon announced a Medium-Term Management Plan with sustainability strategy as one of its management foundations.

Under this plan, our Vision 2030 is to become "a key technology solutions company in a global society where humans and machines co-create seamlessly." With this, we will focus our efforts on building industries that will expand possibilities for people and quality of life (QOL) that will make lives better in the fields of Factory, Energy, Healthcare, and Life & Entertainment.

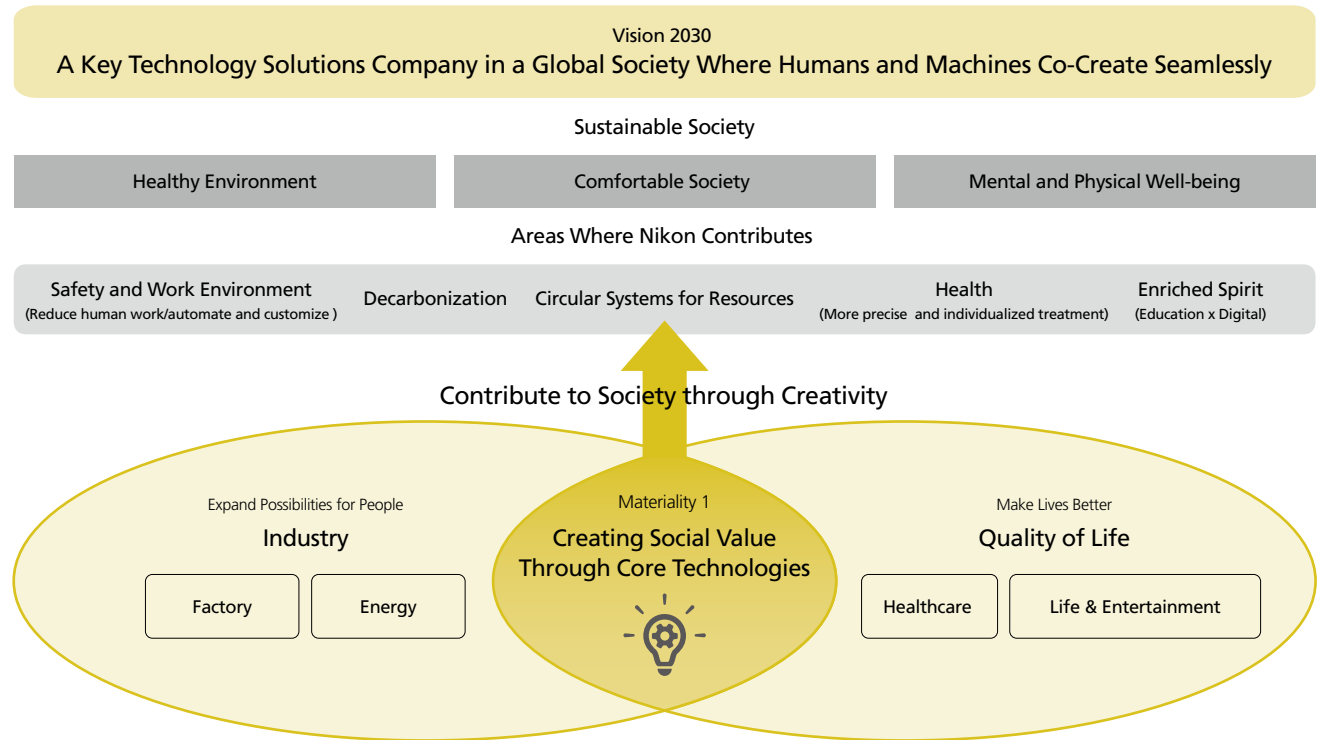
Specifically, in the Factory area, we will become a lead player in flexible manufacturing systems with Robot Vision and Material Processing. We will also contribute to the diversification and sophistication of devices with digital lithography. In the Energy area, we will leverage optical processing machines to promote energy efficiency improvements with fine processing and re-use with additive processing. In the Healthcare area, we will support drug discovery that lightens the burden on doctors and patients, aiming to achieve regenerative medicine for everyone. In the Life & Entertainment area, we will support a society where people are connected in ways that transcend time and space

and virtual and reality with image infrastructure production technologies.

In a world where humans and machines co-create more seamlessly, we will use these efforts to contribute to

the achievement of the SDGs and the realization of a sustainable society, especially in the areas of safety and work environment, decarbonization, circular systems for resources, health, and enriched spirit.

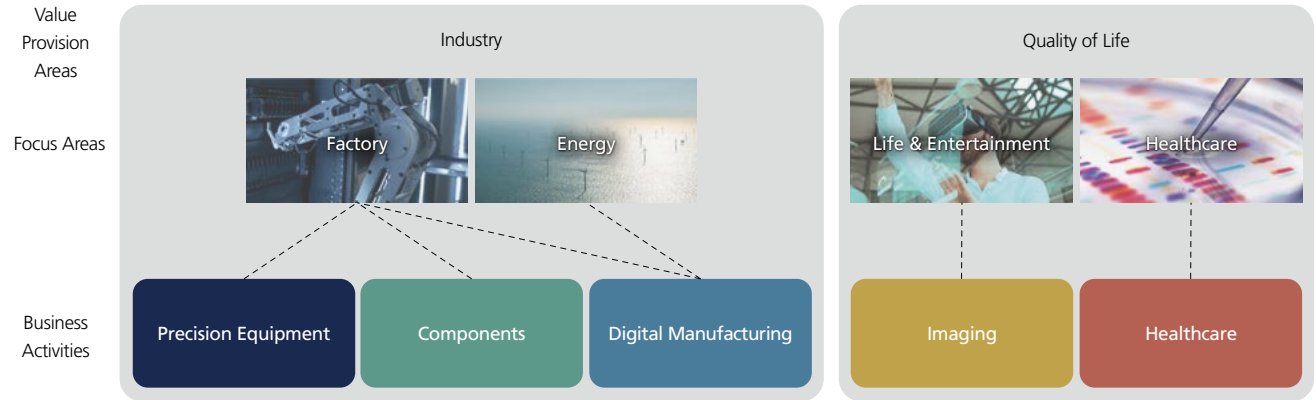
Contributions to Society Through Creativity



Areas and Businesses of Contribution in the Medium-Term Management Plan

In its Medium-Term Management Plan, Nikon aims to use its Components, Digital Manufacturing, and Precision Equipment businesses to provide value in the area of Industry. Likewise, we aim to use our Imaging Products and Healthcare businesses to provide value in the Quality of Life area. By doing so, we will also contribute to a sustainable society.

● Areas and Businesses where Nikon Provides Value



● Contributions Through Business Activities

Areas Where Nikon Contributes	Contributions	Legend
Safety and Work Environment (Reduce human work/automate and customize)	<ul style="list-style-type: none"> Contribute to work environments and public transportation infrastructure through sensing, imaging and displays, etc. Contribute to urban planning and resilient social infrastructure with image analysis and optical telecommunications technology Contribute to space industry and technology by providing satellite modules, etc. 	Precision Equipment, Components, Digital Manufacturing, Imaging, Healthcare
Decarbonization	<ul style="list-style-type: none"> Increase energy efficiency in society with additive and fine processing using optics Enhance manufacturing efficiency in robots with sophisticated hands and eyes and device manufacturing processes Contribute to a society where people connect transcending time and space and real and virtual leveraging image production technologies Contribute to a healthy global environment with longer lasting light sources and more durability in our products 	Precision Equipment, Components, Digital Manufacturing, Imaging, Healthcare
Circular Systems for Resources	<ul style="list-style-type: none"> Reduce the burden of waste and promote re-use among our customers through turbine repairs and ultra-precision processing, controls and measurement, etc. Aim to achieve a recycling society by strengthening equipment re-use and refurbished systems sales Leverage digitalization to help reduce needs 	Precision Equipment, Components, Digital Manufacturing, Imaging, Healthcare
Health (More precise medicine and individualized treatment)	<ul style="list-style-type: none"> Reduce the burden on doctors and patients and support drug discovery with early and high-precision evaluation of ailments Achieve regenerative medicine for everyone with Contract Cell Manufacturing solutions Support medicine with high-precision robot modules 	Precision Equipment, Components, Digital Manufacturing, Imaging, Healthcare
Enriched spirit (Education x Digital)	<ul style="list-style-type: none"> Contribute to rich and creative visual expression and culture with imaging equipment and 3D and 4D technology, etc. Leverage cameras, microscopes and telescopes to stimulate interest in outer space and the natural sciences and contribute to learning and cultivating the next generation Education and training that transcends time and space and real and virtual 	Precision Equipment, Components, Digital Manufacturing, Imaging, Healthcare

Research and Development

System and Framework

In Nikon, Technology Strategy Committee, chaired by the President, utilizes analyses of macro social issue trends to analyze business environments and study and evaluate markets, developing new areas where Nikon should focus its efforts. For example, the Next Generation Project Division and the Digital Solutions Business Unit have been working together since the previous Medium-Term Management Plan's period to expand business for optical and EUV-related components, a short-term growth driver in the Medium-Term Management Plan, and materials processing and robot vision, a medium-term growth driver in this plan. Their cooperation has made steady progress in these areas.

The Technology Strategy Committee also formulates technology strategies and R&D plans for existing businesses. These serve as the foundation for the Advanced Technology Research & Development Division's duties for R&D of technologies shared by business units and R&D of future technologies.

Open Innovation

System and Framework

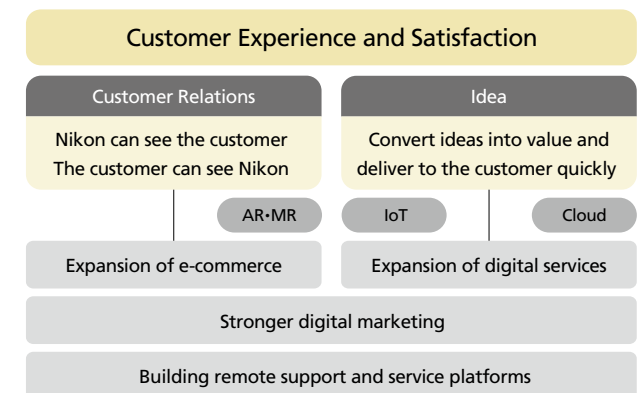
Nikon has adopted open innovation, which actively utilizes external resources, as a means of accelerating the development of new products and services and the launch of businesses that will lead to solutions for expanding and intensifying social issues. Specifically, this includes not only corporate venture capital investment, but also direct investment in start-up firms through the establishment of a private fund, as well as arrangements for providing support and incubation for start-ups and employees that have developed technologies or ideas with strong potential. As of March 31, 2022, we are providing investment support to 15 venture companies and 13 venture capital firms.

Digital Transformation (DX)

System and Framework

In the new normal after the emergence of COVID-19, companies have been using digital technologies to transform business models and digital transformation (DX) to leverage establish competitive advantage. This DX has accelerated and become essential, to improve customer experience and satisfaction and to innovate to meet future needs. Knowing this, Nikon intends to strengthen DX as one of its management foundations in its Medium-Term Management Plan. Specifically, we will enhance the value we provide to customers by expanding our e-commerce and digital services centered on the Imaging Products business, as well as strengthening digital marketing by sharing and harnessing customer data internally to improve planning accuracy and to make dynamic sales proposals. We will also enhance this value by developing remote support and service platforms in the Precision Equipment business. In addition, to support these DX initiatives, we will work to overhaul the Group's IT infrastructure systems, improve its IT literacy, and develop strong cyber security and data governance.

● Customer-Oriented DX



Value Provided Through Business Activities

Areas where Nikon contributes: Safety and Work Environment

Encouraging a Society of Collaboration with Robots

With the evolution of robots and the progression toward places where people can work safely alongside robots, robots will be able to fill manpower shortages and perform dangerous tasks for humans.

In March 2022, Nikon announced the expansion of its lineup of C3 eMotion intelligent actuator units, a joint unit for collaborative robots. C3 eMotion units combine vital robotic-joint components including a motor, speed reducer, motor driver, brake, and encoders together into one package. These units help robots to achieve high precision in stopping and machining. When used together with robotic arms, even engineers without knowledge of robot design can build robot systems easily and freely. Furthermore, the C3 eMotion incorporates Nikon's double-encoder structure (containing two encoders), enabling detection of external force and safe stoppage by the robot in response. Among the many other functions it offers robots, it also incorporates direct teaching, in which a human user can directly manipulate a robot so as to teach it movements.

Nikon will continue to develop and manufacture key parts for collaborative robots and encourage the creation of a society where people and robots can work together.



Left: C3 eMotion (IAU-30); Right: C3 eMotion (IAU-300)

Areas where Nikon contributes ; Decarbonization

Supporting a Digital Society of Convenience and Decarbonization

With the acceleration of DX and the growing convenience and prosperity of society, displays used in smart devices and VR/AR equipment are becoming more sophisticated, not only in their greater resolution but in their thinness and flexibility. Amid this, LTPO* technology is attracting attention, since it enables higher resolution in OLED and LCD panels while also reducing power consumption.

For this technology, it is critical that panels have thinner circuit patterns and uniform line width. The FX-6AS, Nikon's sixth-generation FPD lithography system which supports plates and launched in November 2021, meets these needs. Furthermore, with the introduction of a newly developed projection lens, an improved stage, and enhanced illumination power, it shortens the

time needed for a single exposure while maintaining high resolution, improving takt time and contributing to improved energy efficiency during customer manufacturing.

In semiconductor lithography systems, Nikon will respond to technological innovations in circuit pattern miniaturization and three-dimensional semiconductor device structures, and will use its technological capabilities to support a digital society that combines convenience with greatly reduced energy consumption.

*LTPO: An abbreviation for low-temperature polycrystalline oxide. Use of LTPO technology can optimize display refresh rates, therefore enabling high definition and reduced power consumption in OLED and LCD panels.



FX-6AS

Areas where Nikon contributes ; Circular systems for resources

Leading Monozukuri (Manufacturing) that Harnesses Resource Circulation

Monozukuri (manufacturing) sites are in need of automation and mass customization. Nikon provides processing solutions to meet these needs and

revolutionize industries.

The Lasemeister series of optical processing machines are unique devices capable of metal processing from Nikon. Their lasers easily handle a range of metal processing functions with high precision, from core metal 3D printer functions like molding and additive manufacturing to laser marking and welding. Compared to the conventional method of shaving and casting lumps of metal, Lasermeister devices easily mold complex parts, meeting the diverse metal processing needs of our customers while significantly reducing shavings and other waste. In addition, cracks and other damage in existing metal parts can be directly filled in via molding, enabling repair without discarding parts. In April 2021, Nikon introduced the Lasermeister 102A, an optical processing machine capable of using titanium alloy for metal molding. Titanium alloy is lighter than steel, has better corrosion resistance than stainless steel and aluminum, and retains its strength even at high temperatures. These material properties make titanium alloy favored in various sectors, from aerospace to automobiles and medical care, including applications in jet engines, turbine blades, vehicle exhaust pipes, and artificial bones. This has expanded the breadth of applications for Nikon's resource-efficient metal molding. The Lasermeister 102A also allows the use of recycled powders with virtually no loss of manufacturing quality. With its processing solutions, Nikon will lead the way in *Monozukuri* (manufacturing) that harnesses resource circulation.



The Lasermeister 102A (in white and black)

Areas where Nikon contributes ; Health

Supporting Drug Discovery Research

In recent years, a wide range of cell-based R&D has been ongoing in the drug discovery area. As cells have many different applications, such as valuation of compound efficacy and toxicity and reproduction of phenomena in vivo, there is significant need for cell quality control and evaluation. On the other hand, Nikon provides optimal solutions addressing users' issues by utilizing its own cell cultures, observations, evaluations, and image analysis technologies. Furthermore, in July 2021, Nikon opened the "Nikon Biolmaging Lab," an open facility for pharmaceutical

companies and biotechnology venture companies. This lab is equipped with state-of-the-art equipment useful for drug discovery research and offers a series of experiment options for testing cell cultures and assays*. Lab users can go hands-on with its equipment to verify cell culture conditions, screen candidate compounds, and more. In this process, Nikon's engineers use dialogue with users to propose optimal solutions meeting their needs. In addition to providing hands-on opportunities with Nikon products and educational programs on cell-related image analysis, this open facility is accessible to a wide range of users, facilitating interaction between researchers. Going forward, Nikon will offer its state-of-the-art equipment and community venue to help users solve problems in drug discovery research from multiple perspectives.

*Assay: A method for qualitatively evaluating or quantitatively measuring the presence, quantity, or functional activity or response of a sample.



Nikon Biolmaging Lab

Areas where Nikon contributes ; Enriched spirit

Reaching Greater Heights in Visual Expression

An image can be a record of a moment in history for the rest of humanity, or it can be a work of art, expressing people's joy, sadness, anger, and many more emotions, serving to move its viewers and spark empathy. For decades, Nikon has been a powerhouse driving advancement in visual culture, offering stalwart cameras anyone can rely on to capture an important memory, whether they be a professional photographer or hobbyist.

In October 2021, Nikon released the Z 9, the first flagship model of its Nikon Z series. This full-size mirrorless camera is the synthesis of Nikon's most cutting-edge technologies, offering best-ever performance in both still images and video capture. The Z 9's functionality and performance exceed not only its mirrorless predecessors but also Nikon's SLR camera offerings, giving users the ability to reliably capture decisive moments even in the harshest conditions and to shoot without interruption. We support achieve peak performance for professional photographers and video creators at the forefront of a wide range of genres, including sports, journalism, fashion, commercials, etc. In June 2021, Nikon also announced the "Z fc," a model targeting younger generations, especially those already familiar with capturing and sharing photos. This camera is designed to help them capture more beautiful images and bring a sense of fun in carrying around a camera. We have also been building out our lens lineup to meet the diverse needs of our users. In the fiscal year ended

March 2022, we launched more than 10 new lenses compatible with the Nikon Z mount system. At Nikon, we will continue to strive toward greater heights in visual expression.



Mirrorless camera, the "Z 9"