

# Vision

# What if we could create in places that people were never able to go before?



What if we could create an environmentally friendly society with technologies modeled on living organisms?



# What if machines could support doctors to cure previously incurable illnesses?



What if we could learn seamlessly in virtual spaces beyond the constraints of the physical world?



# Let's expand the options for the future.

Making the impossible possible. With this determination, Nikon has continued its journey to create technologies aimed at expanding human potential.

The future we each aspire to varies for each individual and changes constantly. We therefore hope to create countless options that correspond to diverse values. By expanding our fields of creativity, we aim to create places where new ideas and concepts freely emerge.

Human-machine co-creation produces unprecedented value and options, enabling us to affirm our chosen future and selves. We aim for a such a society.



Vision 2030

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

With technologies developed over more than 100 years, Nikon will expand into new fields.

We will learn from the manufacturing front lines and transform those structures.

Through increased energy efficiency, we will build a sustainable society. We will engage with medical practice to pursue health-promoting technologies. By developing visual spaces, we will update day-to-day experiences.

Bringing people and machines closer together, and freeing creativity. Co-creation will produce new value that we will share broadly with society.

#### A global society where humans and machines co-create seamlessly

## Nikon's value proposition for the future society

By further drawing out human creativity and promoting the building of sustainable environments, humans and machines can co-create seamlessly, whereby we will experience diverse abundance. Such a society is unfolding before our eyes.

In order to expand even further in new directions, Nikon believes it must strive to grasp the true nature of customer needs, and contribute to society with proposals that originate in the future. By leveraging our strength in ultra-precision technologies, which we have consistently refined, we can offer not only end products, but integrated solutions comprising components and services, whereby we aim to be a key technology solutions company in a global society where humans and machines co-create seamlessly.



Strong support from stakeholders (Customers, employees, partners, communities, shareholders)

## Changes Expected in Society by 2030 and Nikon's value proposition

With advances in technology, great change (a "megashift") is expected to take place in society by 2030. Nikon will identify the diverse needs of society this produces, and stay ahead of the curve. contributing to society in two fields of value proposition.

#### A shift from pursuit of functional value to meaningful value

By reducing work hours and transforming the framework of society through technological innovation, we anticipate a shift in people's goals, as we move from labor to support our lifestyles to working for self-expression. As expectations for meaningful value grow, we will be required to respond to a range of perceptions, and to offer diverse value.



### Value proposition

#### Factory

Connections between humans and machines improve with ultra-precision technologies.



#### Flexible manufacturing in response to diverse needs

Advance manufacturing using light as a tool to deliver diverse products that suit customer tastes and society's needs. We aim to eliminate restrictions on processing size and location to become a society that effortlessly employs flexible manufacturing systems. Using telecommunications technology, which will continue to advance, we will expand possibilities for creativity to outer space, the deep sea and other places that posed difficulties until now.

#### Transforming the future work environment through sophistication of robots

In order to make people's work environments more comfortable, and to make work more fulfilling, we will develop dynamic vision systems that far outperform the human eye, joints that move quickly and smoothly, and so on, to contribute to greater sophistication of robots. When advanced robots can perform work on behalf of humans, it will free people from the risk of accidents, etc. and enable manufacturing in harsh conditions.

## Energy

Leverage innovative technology and manufacturing to decarbonize and recycle resources.



#### Increase energy efficiency with innovative processing technologies

By adding "riblets," microscopic structures that simulate shark skin, to the surface of products, we can reduce air and water resistance, and boost energy efficiency. We currently envisage applying the technology extensively, from aircraft and wind turbine blades, to ships and home appliances, expanding targets for processing while contributing to reduced fuel consumption and CO<sub>2</sub> emission.

#### Expanding the scope of re-use

We will promote re-use, developing an environment where repair work is easier, through metal 3D printers that employ optical technologies and precision control technologies, to handle repairs that were difficult to perform without engineers, such as for turbine blades, that wear and corrode after years of use.

#### Healthcare

In drug discovery and regenerative medicine, support a society where individuals can receive optimal care.



#### Regenerative medicine and individualized treatment for all people

With technology and expertise cultivated over many years for the observation and evaluation of cells, Nikon will support research and product development, and contribute to the advancement of regenerative medicine. In tandem with regenerative medicine, we will also promote the development of individualized treatment. Even when suffering from the same illness, the treatment required varies according to a person's physical constitution. By popularizing tests that accurately analyze an individual's constitution and illness type, we will contribute to realization of a society that can provide patients with optimal care.

#### Assisting early detection of illness

We are promoting development of systems that use artificial intelligence (AI) to support doctors in diagnosis to detect emerging illnesses at an early stage. We aim for a future where lives are saved, by preventing undetected illnesses from worsening, leading to earlier treatments.

#### Life & entertainment

Support a society where people are connected in ways that transcend time and space with image production technologies.



#### Changing the learning experience with VR and MR

Provide realistic learning spaces to support remote learning, dangerous work, and training for emergency response. Through practical learning in virtual spaces, we can enhance learning outcomes, and promote the creation of environments that deliver learning opportunities to more people.

#### Exploring new imaging expression

Advancing development of tools that anyone can use will create opportunities for more people to be involved in image production, using 3D and 4D technologies that could previously only be handled by a few people. We will work with creators to provide technologies that embody concepts of expression, to create the future of imaging culture together.

#### Conclusion

While it is no exaggeration to say that machines are just a part of our environment, they are embedded in our lifestyles, and support daily life. In recent years, the introduction of healthcare robots and robot pets has helped to reduce people's stress levels, and to brighten our surroundings with their special ways of conversing. They thereby not only enhance convenience, but also play a role in comforting people. Machines are becoming more familiar, and in some instances, have become strong partners that influence our thinking and action.

But although machines aid our lifestyles and skills, there are abilities that only humans possess. Abstract thinking and creative ideas are unique to humans. Humans and machines have different gualities, but by working together, it causes a chemical reaction, and should produce new creativity. The role of Nikon from now is to offer new value produced by co-creation. In a world created by humans and machines in tandem, there will surely be discoveries that significantly transcend current accepted practice and ways of thinking. We have high hopes for this. We will also enjoy the creative process. Nikon will seek value for the next era, and will tackle new fields.

Our policies and specific strategies moving forward are detailed in the Medium-Term Management Plan materials. Please refer to them for details.

#### Medium-Term Management Plan

