

# Delivering Nikon's values to the world: Nikon globally expands its comprehensive power.

Our technology, products and services contribute to everything from people's everyday lives to space exploration. In order to deliver our products where they are needed, we have established our production bases at strategic points, and have positioned our sales and service locations based on careful analysis of industrial and market characteristics, as well as cultures and lifestyles. By combining the comprehensive power of these groups, Nikon delivers our values to the whole world.

- ★ Nikon Holdings Europe B.V.
- Nikon Precision Europe GmbH
- Nikon Europe B.V.
- Nikon AG
- Nikon GmbH
- Nikon U.K. Ltd.
- Nikon France S.A.S.
- Nikon Nordic AB
- Nikon Kft.
- Nikon s.r.o.
- Nikon Polska Sp.z o.o.
- Nikon (Russia) LLC.
- ▲ Nikon Instruments Europe B.V.
- ▲ Nikon Instruments S.p.A.
- ▲ Nikon Metrology NV

- ★ Nikon Holdings Hong Kong Limited
- Nikon Precision Korea Ltd.
- Nikon Precision Taiwan Ltd.
- Nikon Precision Singapore Pte Ltd
- Nikon Precision Shanghai Co., Ltd.
- Nikon Hong Kong Ltd.
- Nikon Singapore Pte Ltd
- Nikon (Malaysia) Sdn. Bhd.
- Nikon Imaging (China) Sales Co., Ltd.
- Nikon Australia Pty Ltd
- Nikon India Private Limited
- Nikon Sales (Thailand) Co., Ltd.
- Nikon Middle East FZE
- Nikon Imaging Korea Co., Ltd.
- Nikon (Thailand) Co., Ltd.
- Nikon Imaging (China) Co., Ltd.
- Nikon International Trading (Shenzhen) Co., Ltd.
- Guang Dong Nikon Camera Co., Ltd.
- Hang Zhou Nikon Camera Co., Ltd.
- ▲ Nikon Instruments (Shanghai) Co., Ltd.
- ▲ Nikon Instruments Korea Co., Ltd.
- ▲ Nanjing Nikon Jiangnan Optical Instrument Co., Ltd.

- Tochigi Nikon Precision Co., Ltd.
- Miyagi Nikon Precision Co., Ltd.
- Nikon Tec Corporation
- Tochigi Nikon Corporation
- Sendai Nikon Corporation
- Nikon Imaging Japan Inc.
- Nikon Vision Co., Ltd.
- ▲ Kurobane Nikon Co., Ltd.
- ▲ Nikon Instech Co., Ltd.
- ▲ Nikon-Trimble Co., Ltd.
- ★ Nikon Optical Shop Co., Ltd.
- ★ Nikon-Essilor Co., Ltd.
- ★ Nikon Systems Inc.
- ★ Nikon Business Service Co., Ltd.
- ★ Nikon Tsubasa Inc.
- ★ Nikon and Essilor International Joint Research Center Co., Ltd.
- ★ Nikon Engineering Co., Ltd.
- ★ Hikari Glass Co., Ltd.

- Precision Equipment Company
- Imaging Company
- ▲ Instruments Company
- ★ Others





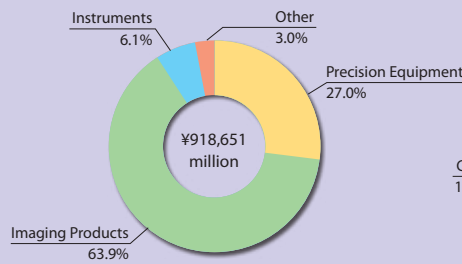
- ★ Nikon Americas Inc.
- Nikon Precision Inc.
- Nikon Research Corporation of America
- Nikon Inc.
- Nikon Canada Inc.
- Nikon Mexico, S.A. de C.V.
- Nikon do Brasil Ltda.
- ▲ Nikon Instruments Inc.

**Company Profile**

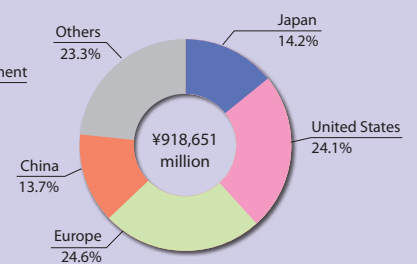
**Company Name:** NIKON CORPORATION  
**Head Office:** Shin-Yurakucho Bldg., 12-1, Yurakucho 1-chome, Chiyoda-ku, Tokyo 100-8331, Japan  
 Tel: +81-3-3214-5311

**Representative Director, President, Member of the Board:** Makoto Kimura  
**Established:** July 25, 1917  
**Capital:** ¥65,475 million (as of March 31, 2012)  
**Net Sales: (consolidated)** ¥918,651 million (for the year ended March 31, 2012)  
**Number of Employees: (consolidated)** 24,348 (as of March 31, 2012)  
**Plants:** Ohi, Yokohama, Sagamiyara, Kumagaya, Mito and Yokosuka

**Ratio of Net Sales by Industry Segment**  
 (for the year ended March 31, 2012)



**Ratio of Net Sales by Region**  
 (for the year ended March 31, 2012)





## We listen to our customers and the voices of societies all over the world.

Nikon's product manufacturing process begins with us listening to people all over the world — people from different walks of life, people involved in different industries — so we can understand precisely what they want from us. We gather customers' opinions in many different ways: sales, service and support activities, trade shows, promotional and other events, and via the Internet. To us, this information is invaluable. We are endeavoring to create new products and services that exceed customer expectations by aggregating and analyzing these opinions.

### Supporting Professional Photographers

Nikon Professional Service (NPS) is an organization that provides assistance and services to its full-time professional photographer members, with top-quality service depots at international events. NPS responds to the exacting demands of professional photographers while applying their valuable feedback for product development. The photo above shows the professional service team from Nikon U.K. Ltd. in action.

### Participation in Trade Shows

We participate in many different kinds of trade shows around the world, using them as precious opportunities to explain our products to customers. The photo at right shows Nikon Metrology NV's booth at Control Germany\*. Among the products we displayed were 3D coordinate measuring machines, 3D laser scanners, and X-ray CT inspection systems.

\* The leading international trade fair for quality assurance, held at the Stuttgart Exhibition Centre







#### Product Planning by Nikon Direct

Nikon Direct\* plans and sells products such as camera bags, accessories and photography clothing by analyzing customer feedback gathered via phone, e-mail and original marketing surveys. By creating unique products in response to customers' tastes, Nikon Direct increases customer satisfaction.

\*An online shop operated by Nikon Imaging Japan Inc.



#### Speedy Maintenance System

Nikon Tec Corporation is in charge of the maintenance of steppers and scanners, which have been called the most precise machines ever developed, in Japan. Most semiconductor and LCD panel production lines operate around the clock, so system failure significantly damages productivity. Field engineers provide prompt servicing to support the performance of our steppers and scanners. Feedback from these engineers helps improve the reliability of our products.

#### Boosting Sales in Emerging Markets

To facilitate better contact with our customers, we proactively set up sales subsidiaries in fast-growing, emerging economies, as well as in showrooms and service centers. We are making efforts to obtain new customers by setting up marketing systems and conveying the appeal of the full range of our products. The photo below shows a showroom operated by Nikon India Private Limited.





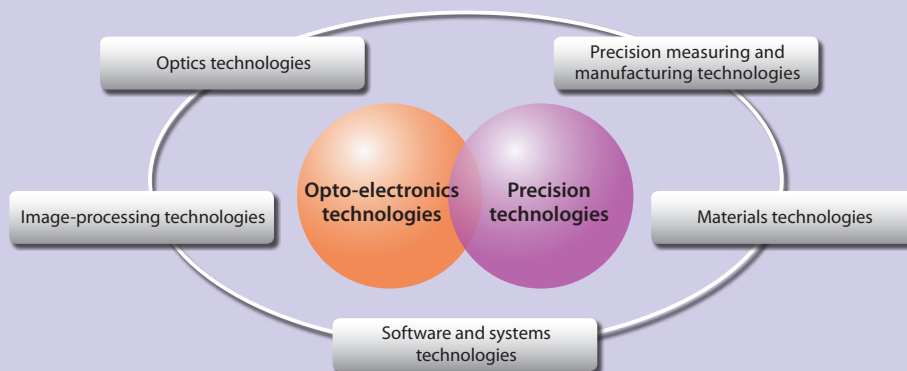
# By mastering optics and precision technologies, we create a new future.

To strengthen our existing businesses and create new businesses, it is vital to continue basic R&D activities based on a long-term perspective. With our core technologies — opto-electronics and precision — as a foundation, Nikon is conducting R&D in wide-ranging areas of technologies, such as optics, precision measuring and manufacturing, image processing, materials, and software and systems. The Core Technology Center that conducts these R&D activities supports our businesses, including precision equipment, imaging products and instruments, with its results and expertise. Each of our business units also engages in R&D activities to develop attractive products. Our R&D, ongoing since our founding, manifests itself in our technological prowess and forward-thinking products.

## Electromagnetic Field Analysis of Light

The behavior of light in an infinitesimal wavelength structure must be handled strictly as an electromagnetic field. After researching solutions to Maxwell's equations, which describe electromagnetic fields, Nikon developed a simulator to conduct precision analysis of gratings and pinholes. We apply our findings to product design. For example, the simulator is useful in analyzing and improving the imaging sensors used in digital cameras. Another example, evanescent light, is essential for electromagnetic field analysis, so we are researching and considering new applications for it.

### Basic Technologies that Support Nikon



\*The Technology portion of our website provides an extensive introduction to our R&D activities and core technologies.  
<http://www.nikon.com/about/technology/index.htm>





### Machine Learning Technology

The basic concept of machine learning technology is to endow computers with the ability to judge, classify, and predict as human beings can do based on experience and knowledge. Nikon is conducting research in areas ranging from the mathematical theory of machine learning to its application in products. We regularly announce the outcome of our research at major international conferences and publish our results in journals. We also participate in global competitions for computer vision, achieving excellent results. Our applied research contributes to, for example, data mining for improving production yields, image processing for digital cameras, and system optimization of IC steppers and scanners.

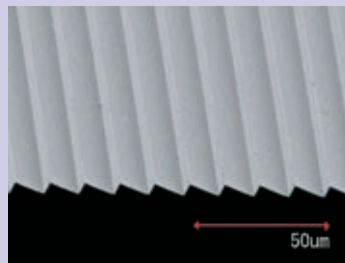
### Structural Colors

Structural colors are created by interference, diffraction, scattering, or a combination of them when the light is incident on nanostructures. Examples in nature include a Morpho butterfly's wings, the jewel beetle and peacock feathers. We are conducting structural color research in order to unravel this color-producing mechanism and apply it to decorative coatings on products and unique optical elements. The photo shows a comparison of a Morpho butterfly and a structural color sample.

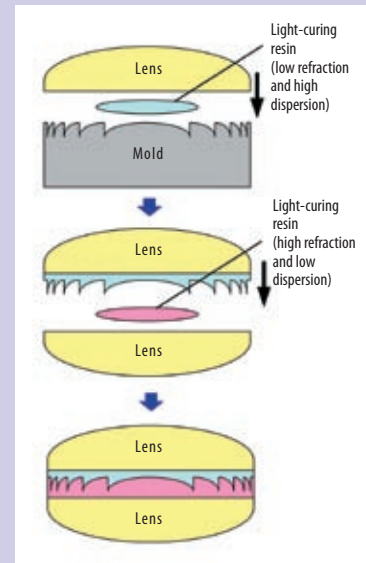


### Diffractive Optical Element (DOE)

A conventional lens uses the refractive effect to change the direction of light. A diffractive optical element (DOE), however, uses diffraction — with dispersion contrary to that of conventional lenses — making it possible to realize a compact, lightweight optical system with less chromatic aberration. Nikon's DOE features excellent performance over a broadband wavelength range. Its unique structure uses different optical materials to form a diffraction grating at the junction between lenses. We are developing technologies in materials, processing, measuring, simulation and designing that are necessary to make DOEs commercially viable.



Nikon's DOE is microfabricated by precision-designing a serrated cross-sectional structure that measures tens to hundreds of micrometers.



Nikon's DOE sandwiches two types of light-curing resins with different optical characteristics between two glass lenses. Serrated cross-sectional structures are sterically controlled and created on the two light-curing resins.

## The joy of turning trust into products.

Precise manufacturing is the thread that connects all Nikon products, from optical components and digital cameras to microscopes, steppers and scanners. We are working at all our locations around the world to offer high-quality products that meet the needs of society. In addition to introducing the latest manufacturing facilities and technologies, we are shortening manufacturing lead times and reducing costs by reviewing production processes and innovating procurement. In Japan, plants in Ohi, Yokohama, Sagamihara, Kumagaya, Mito and Yokosuka, as well as Nikon group companies in other locations, are in charge of production. Our global production system includes overseas facilities such as Nikon (Thailand) Co., Ltd. and Nikon Imaging (China) Co., Ltd.



### Highly Efficient Line Production

Nikon Imaging (China) Co., Ltd. (see photo above) manufactures products such as compact digital cameras, the Nikon 1, Advanced Camera with Interchangeable Lenses, and 1 NIKKOR interchangeable lenses. Nikon (Thailand) Co., Ltd., Nikon's largest overseas production plant (see photo below), manufactures digital SLR cameras and NIKKOR lenses. At these plants, we use line production based on the pull system; for production of digital SLR cameras, processes from unit assembly to adjustment and inspection are designed to function linearly in an expansive plant. Fast, accurate work creates uniform products of superb quality. We are aggressively advancing efforts to improve each manufacturing process in order to realize further enhanced product quality, optimized work efficiency and shortened work hours.







#### Cell Production of Digital SLR Cameras

Sendai Nikon Corporation manufactures our flagship digital SLR cameras. Its cell production realizes higher quality and ensures the timely supply of products. Because each worker is responsible for multiple processes, each must have excellent techniques and uncompromised concentration. Such steady, dedicated effort yields the reliable, world-class products for which Nikon is known.



#### Advanced Processing by Nikon Master Craftspersons

We recognize certain employees as Nikon Master Craftspersons, exceptionally skilled people who take charge of manufacturing the parts of products that require extremely high precision and quality. In the above photo, a Nikon Master Craftsperson is processing a component on a milling machine. Such traditional skills are indispensable at a time when many production processes are automated.



#### Manufacture of Synthetic Silica Glass

We use synthetic silica glass for the projection lenses in our IC steppers and scanners. The glass is formed when oxygen, hydrogen and silicon compound gases react with one another at temperatures reaching 2,000°C (approx. 3,600°F). It takes about a month for us to grow the sediment from the reactions into an ingot that weighs about one ton. Nikon's Sagami-hara Plant produces high-quality synthetic silica glass to support the performance of projection lenses for IC steppers and scanners.



#### Adjusting Microscope Objective Lenses

Kurobane Nikon Co., Ltd. produces objective lenses for microscopes. We enhance the optical precision of these lenses by fitting them before the objective lens is completed, then micro-adjusting the lens groups inside the lens barrel while actually looking into the microscope. Then we use a unique inspection system to conduct final aberration checks.



#### Production of LCD Scanners

LCD panels are increasing in size as large-screen LCD TVs and digital signage becomes more popular. Nikon assembles, adjusts, and inspects LCD scanners that can handle extremely large glass plates. We manufacture and ship the stage, optical systems and illumination systems, etc., to our customers as separate units. We then assemble and adjust the components at the customer's facilities.