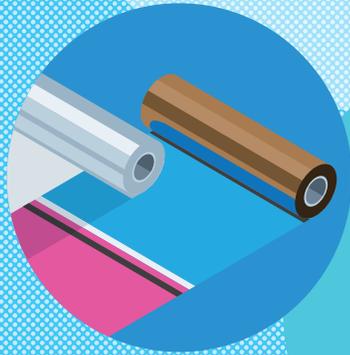


# Segment Information

## CONTENTS

36	Information Communication
36	Business Strategies
38	Financial Results
40	Growth Businesses and Strategic Businesses
42	Lifestyle and Industrial Supplies
42	Business Strategies
44	Financial Results
46	Growth Businesses and Strategic Businesses
48	Electronics
48	Business Strategies
50	Financial Results
52	Growth Businesses and Strategic Businesses





# Information Communication



Top: "honto" hybrid bookstore network membership card and e-book  
Bottom (from left): PrintRush self-service photo printing system; DNP Kashiwa Data Center; Printing press in action

## Business Strategies

As information becomes increasingly digitized and networked, and information media become increasingly diverse, consumers' values and lifestyles have been undergoing major changes. Rather than simply responding to those changes, DNP is developing a wide range of businesses that "deliver the information that consumers want, when they want it, in optimal media formats" and enable us to generate changes ourselves.

The Information Communication segment includes Imaging Communication, a business that addresses all aspects of imaging, in addition to Books and Magazines, Commercial Printing, Business Forms, and Education and Publications Distribution.

Our Business Process Outsourcing (BPO) unit opened new BPO centers in Tokyo and Sendai in December 2015, giving us a total of five centers nationwide. By using our world-class information security technologies and expertise at these BPO centers, we can safely and reliably process information that belongs to consumers and corporate clients and provide a variety of products and services including direct mail and other variable notifications. DNP is one of Japan's largest smart card providers. In addition to expanding settlement services for international brand prepaid cards and card-linked offers (purchasing history-based sales promotions) that analyze and propose the most appropriate products based on individuals' purchasing histories, we will actively expand a variety of services

related to Japan's new "My Number" citizen numbering system. Furthermore, we plan to promote global business development, primarily in Southeast Asia. We will continue to offer diverse services like our "honto" hybrid paper and e-book sales network, and to create new value, for example by combining photo printing and information services.

Among the structural reforms that DNP is promoting in order to increase profits, in April 2016 we consolidated business units such as marketing (including Commercial Printing) and information security with units that specialize in system integration and consulting. By combining planning and development functions and having them cooperate more closely with sales and manufacturing units, we aim to increase synergistic benefits. We already introduced a unified management system for manufacturing functions nationwide in the fiscal year ended March 2015, and we intend to continue increasing revenues by boosting production efficiency and capital efficiency.

## Main Policies

### Expand paper/electronic hybrid sales and publishing solutions including “honto” network

- In order to provide the books that customers want to read, when they want them, in the formats that they want, we linked our honto.jp website, which offers both electronic and paper books, with physical bookstores operated by DNP affiliates MaruzenJunkudo Bookstores Co., Ltd. and Bunkyodo Group Holdings Co., Ltd. to form the “honto” hybrid bookstore network.
- Rather than serving solely as a manufacturer of printed materials, DNP provides total support for stimulation of the publications market, for example through marketing and customer service.
- Provide a full range of publishing services including production of paper and electronic books, and print-on-demand services.
- Promote regional revitalization businesses, for example by combining bookstore and library functions, or by creating public gathering places.

### Promote business process outsourcing (BPO) operations based on solid information security systems

- Expand BPO operations that provide comprehensive support for corporate clients’ overall business processes.
- Use BPO centers to provide value for clients’ overall business processes through activities like market research, analysis of operational problems, design, construction and operation of optimal business processes, customer center operation, and production and shipment of sales promotion tools.

### Settlement platform businesses that make use of DNP’s data centers

- Use DNP Kashiwa Data Center to expand safe and reliable general-purpose branded prepaid and debit processing services.
- Provide unique settlement services that can be offered to a wide range of corporate clients nationwide, including financial institutions and distributors.

### Apply strength in smart cards to settlement-linked marketing, etc.

- Expand DNP’s smart card business in the global arena now that we have already captured the top share of the Japanese market thanks to our overwhelming technological lead.
- Expand card-linked offers (purchasing history-based sales promotions) and other types of settlement-linked marketing methods that generate added value.

### Use big data to expand businesses like inbound and outbound tourism, and regional revitalization based on consumers’ point of view

- Focus on developing communication channels that connect companies and consumers by using information access histories, purchasing histories, and other types of big data.
- In addition to responding to the growing number of foreign visitors to Japan and Japanese traveling overseas, expand various services that enliven outlying regions.

### Imaging Communication: everything to do with images

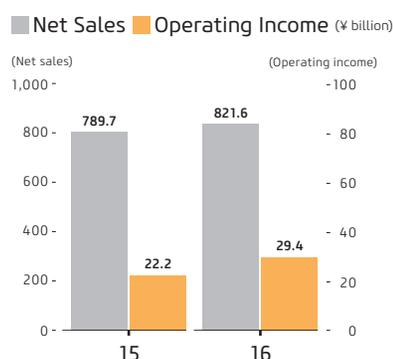
- Reinforce global manufacturing, sales and service systems; expand field of business beyond ink ribbons and other printing media to include the entire “imaging market.”
- Develop and provide—to photo imaging markets in Japan and overseas—solutions that offer new value such as enjoyment or convenience.
- Respond promptly to the digitalization of commercial photo printing systems that are being used increasingly around the world.
- Expand the DNP Imaging Mall that promotes distribution of video content from sporting and other events.

# Financial Results

## Financial Highlights

(¥ billion, %)

	2015.3	2016.3
Net sales	¥ 789.7	¥ 821.6
Operating income	22.2	29.4
Operating income margin	2.8%	3.6%



### Net sales

Although the segment was affected by stagnation in the publishing market and lower demand for flyers, catalogs, and other commercial printed matter, Imaging Communication performed favorably. Some other businesses also grew nicely, including businesses related to smart cards and settlement services, and information processing services such as data entry, printing, and mailing of personalized mail. Net sales grew by 4.0%, or 31.89 billion yen compared to a year earlier.

### Operating income

Growth in Imaging Communication and businesses related to the introduction of Japan's "My Number" citizen numbering system helped increase operating income. By reviewing sales, planning and production systems and implementing structural reforms, we compensated for increases in the cost of printing paper and other materials as well as for the effects of intense competition pushing down our own sale prices. As a result, operating income increased by 32.3% or 7.17 billion yen from the previous year. The segment's operating income margin increased by 0.8 point, from 2.8% a year earlier to 3.6%.

## Fiscal Term through March 2016: Business Environment and Summary of Financial Results

### Books and Magazines; Education and Publications Distribution

In the fiscal year ended March 2016, Japanese publishing industry sales declined by 5.9% from the previous fiscal year to 1,501.3 billion yen. Specifically, magazine sales declined 9.6% to 762.4 billion yen and book sales declined 1.7% to 738.8 billion yen. Meanwhile, in calendar 2015 the electronic publications market was brisk, surging by 31.3% over the previous year to 150.2 billion yen.

In DNP's Books and Magazines business, we worked proactively to increase sales, and ran special offer campaigns that succeeded in boosting book sales above the previous-year level. Nevertheless, due to a steep decline in magazine sales, this unit's overall sales fell below those of a year earlier.

In Education and Publications Distribution, we enjoyed higher sales through our honto network, achieving growth in sales of e-books as well as paper books both through physical stores and online mail order. In addition, we did well in library management support businesses linked to governmental efforts aimed at regional revitalization. DNP continues to promote businesses that offer consumers "the books they want to read, when they want them, in the formats they want," primarily through our "honto" hybrid bookstore network that links online mail-order sales, electronic bookstores, and physical bookstores operated by partners including Maruzen CHI Holdings Co., Ltd. and Bunkyo Group Holdings Co., Ltd. Maruzen CHI focuses on library management outsourcing services and promotes regional revitalization measures in cooperation with libraries and local governments. Bunkyo is pushing to open more stores in its Animega chain, which specializes in animation-related merchandise, and is working to draw in new customers through such measures as installing a stationary section in each store.

Going forward, DNP intends to further increase cooperation with publishers and work even harder to promote all types of publishing-related businesses from project planning to production, distribution, and sales, including secondary content usage and overseas development, in order to stimulate the publishing market as the Japanese publishing industry's "No.1 partner."

\* In April 2015, Imaging Communication business was transferred to the Information Communication segment from the Lifestyle and Industrial Supplies segment. Figures for the term ended March 2015 in the chart above have been adjusted to reflect the new configuration of the Information Communication segment.

## Commercial Printing

According to Japan's Ministry of Economy, Trade and Industry, Japanese corporate advertising expenses in the fiscal year ended March 2016 grew by 3.4% from the previous year as increased Internet-related and other expenses more than made up for a decline in direct mail and other printed advertisements. This shift in the market is reflected in DNP's Commercial Printing business, which felt the effects of the market's switch to Internet-based distribution of product catalogs and operating manuals.

For some years, DNP has been focusing on building a unified control framework for its nationwide sales, planning and production functions. In the fiscal year ended March 2016, we continued to promote market expansion across corporation and industry lines and focused on proposing solutions that create new value. We also strove to enlarge our BPO operations (including operation of sales campaign headquarters), and worked to achieve nationwide application of local development projects and successful endeavors, and to reap synergistic benefits. As a result, we achieved increased sales of pamphlets, in-store promotional materials for retail stores, and point-of-purchase and other sales tools, and ended with net sales similar to those of the previous year.

## Business Forms

Thanks to corporations' increasing need to securely manage and use employees' and customers' personal information, we have experienced growth in our electronic money and other smart card businesses as well as in information processing services. We are speeding up global development in our smart card business, starting with strengthening our position in the Southeast Asian region. For example, in March 2014 we formed a business and capital tie-up with MK Smart Joint Stock Company (MKS), Vietnam's leading smart card manufacturer, and in February 2016, we established a joint venture with Indonesia's largest cash card manufacturer and seller, Wahyu Kartumasindo International (WKI). In our IPS business, overall sales increased year on year thanks to growth in notification mailings connected to the launch of Japan's "My Number" citizen numbering system and in operations outsourced by financial institutions.

DNP is also focusing on expanding sales in its BPO business, which provides comprehensive support for corporate clients by analyzing their operational issues and planning, constructing, and operating optimal business process systems aimed at achieving sustainable growth. In December 2015, we established BPO centers in Tokyo and Sendai, giving us a total of five such centers nationwide. By doing so, we roughly doubled our overall BPO capacity

so that we can now process the equivalent of some 20 million units of direct mail per year. In addition to acquiring internationally recognized Payment Card Industry Data Security Standards (PCI DSS) certification, we will make use of our earthquake- and fire-resistant DNP Kashiwa Data Center along with our wealth of expertise to actively expand businesses that are suitable for full outsourcing by client companies.

## Imaging Communication

Net sales from Imaging Communication increased compared to the previous year. Commercial photo printing companies worldwide are increasingly switching from the conventional silver halide photo development method to dry methods that do not require developing solution. Buoyed by this trend, sales of DNP's dye-sublimation thermal transfer printing media (color ink ribbons and receiver paper) used for dry-method photo printing have grown significantly in the Southeast Asian, North American and European markets. In the market for thermal mass transfer printing media, which is used for printing bar codes that help control production and distribution, we saw growth in sales of high-added value products such as wax-based media that are exceptionally heat resistant. In addition, we enjoyed a smooth start for an Individual Number Card application service that we launched in October 2015. The service expedites issuance of official Japanese government ID cards by using our Ki-re-i ID photo system to both take an ID photo and transmit it along with application information within a highly secure communication environment.

In the "imaging market," we plan to take advantage of business opportunities arising from increasing consumer demand for services like photo printing and album production, for example by offering value-added services that make the most of DNP's IT expertise. In August 2015, we launched a new "DNP Imaging Mall" to help companies that want to make use of their rights to images of popular musicians, athletes, or other celebrities by selling photo prints. DNP provides comprehensive service including image storage and processing, website operation, and high-quality print production and delivery.

# Growth Businesses and Strategic Businesses

## Active development of Imaging Communication that addresses every aspect of imaging

In the 1980s, DNP developed two types of printing media—dye-sublimation and thermal resin—by applying the coating technologies that it had cultivated through its printing business. Today, we have a comprehensive, global framework for the development, manufacturing and sales of these products and we are one of the world’s top suppliers of both dye-sublimation media, used mainly for photo printing, and thermal resin media, used mainly for printing barcodes. DNP views as its field of business the overall “imaging market” that addresses every aspect of imaging. Based on the idea of “building a future that links people to the world through imaging,” we offer high-added value services in addition to developing, manufacturing, and selling printing media.

Nowadays people all over the world enjoy recording photographs and videos on smartphones or other portable devices and uploading them to social networking services, making diverse imaging-related needs more widespread. Mainly in Japan and North America, DNP offers consumers photo systems that take pictures and print them on the spot. In August 2015, we launched our “DNP Imaging Mall” service that provides one-stop image marketing solutions with a full range of functions including image data storage

and processing, website construction and operation, high-quality print production, and order-taking and shipment functions. The service allows companies that own content such as photos of popular athletes or other celebrities to market prints to consumers without burdening their other business operations and with little cost for startup or operation.

In October of the same year, we began offering an Individual Number Card application service that uses DNP’s Ki-Re-i ID photo booths to provide consumers with a more convenient way to obtain their official government ID card.

Going forward, DNP will continue to provide consumers and society with new value by operating businesses that address every aspect of imaging communication, from picture-taking, data processing and printing, to using images to stimulate communication.



A Ki-Re-i ID photo booth, where customers can apply for an official Japanese government “My Number” card

## DNP’s many initiatives to stimulate the Japanese publications market

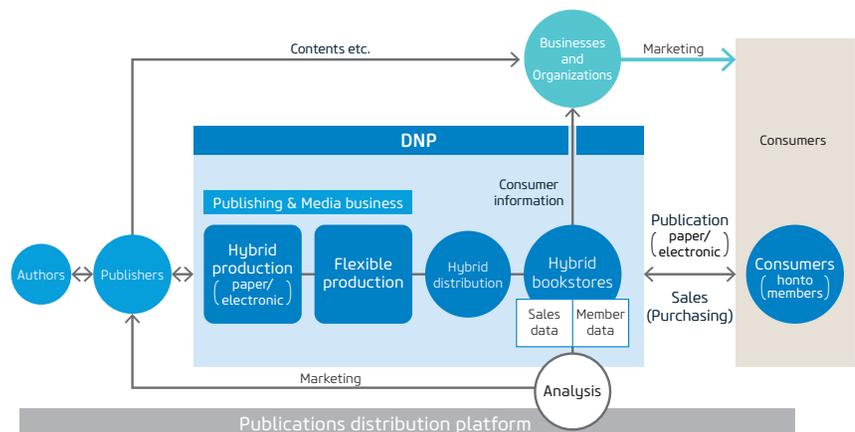
As “the publishing industry’s No.1 partner,” DNP strives to stimulate the overall publishing market.

We make the most of our strengths in handling both paper and electronic books. As a manufacturer, we perform high-quality printing and binding (whether in large or small lots) and at the same time we plan and produce digital content. We provide platforms for developing diverse services including development of e-commerce websites and smartphone applications.

At the same time, in order to stimulate distribution and sales, we provide publications distribution platforms that effectively market both paper and electronic books. In order to provide “the books that people want to read, when they want them, in the formats they want” in response to consumers’ increasingly diverse reading styles, we created the “honto” hybrid bookstore network that links our honto.jp book sales website with sales at bricks-and-mortar stores operated by MaruzenJunkudo Bookstores Co., Ltd. and Bunkyo Group Holdings Co., Ltd.

As of June 2016, honto had approximately 3.4 million members who enjoyed services that book-lovers find convenient, such as loyalty points and store inventory search capabilities.

DNP gains information from its contacts with many readers and uses that information together with publishers and other companies to formulate marketing and sales plans, plan and execute promotional measures, and take other steps to stimulate the publications market.



## Using DNP's information security expertise to make businesses more secure

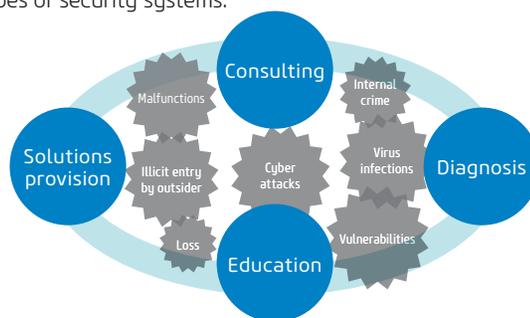
Cyber attacks that target specific corporations are becoming increasingly sophisticated. Recent years have seen a noticeable increase in attacks whose aim is not only to steal information, but to interrupt corporations' business operations by overloading servers, shutting down systems, or by encoding data so as to lock out the rightful owners.

Since its founding in 1876, DNP has been appropriately and safely handling large amounts of valuable information entrusted to it by other businesses. Examples of sensitive information that we are entrusted with include as-yet undisclosed information about new products, not yet released books and magazines, all types of financial institution statements, personal information including purchasing histories and membership in e-commerce websites, semiconductor designs and other technical data. We have constructed and implemented strong and appropriate measures to protect this valuable information from cyber attacks and leaks. In addition to reinforcing physical measures to secure networks and control entries/exits at factories and offices, we have revised our company regulations and workflows and trained employees to reinforce security.

We have always provided our information security expertise as added value in our business process outsourcing and other

businesses that involve receiving information from corporate clients. Now we are also making use of it to help companies bolster their own security measures. For example, now that businesses that handle credit card information are being asked to comply with international Payment Card Industry Data Security Standards (PCI DSS), in April 2016 DNP started a consulting service that helps businesses acquire PCI DSS certification.

DNP will continue to help companies and all types of organizations improve their information security in a variety of ways including consulting, employee training, diagnosis of vulnerabilities in operational systems and processes, and the sale of software that wards off targeted attacks and of various types of security systems.



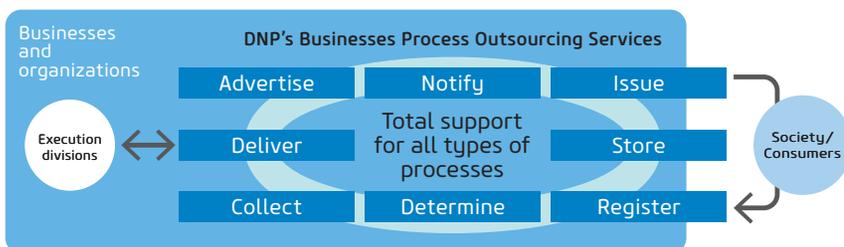
## Expanding BPO centers in response to demand for business process optimization

Amid today's dramatic social changes, companies and organizations are focusing on building new business models and developing new products and services. At the same time, developments in information communication and other technologies have made communication with consumers more diverse and more complicated. Given this situation, businesses and organizations are taking a fresh look at their conventional business operations and building new processes. As they work to optimize efficiency and costs, there is increasing demand for business process outsourcing (BPO) providers to take on some or all of their clients' operations.

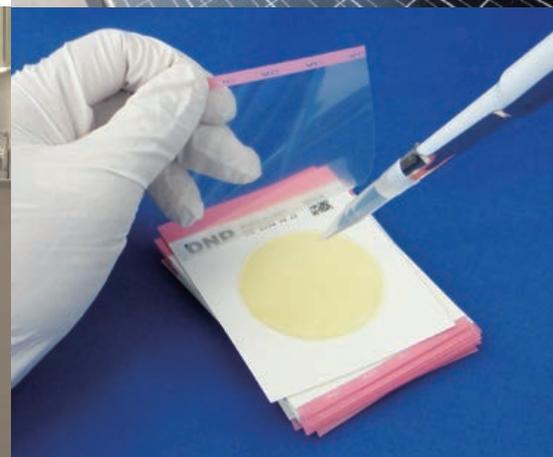
DNP's BPO service provides a comprehensive range of functions, from study and analysis of operations to process design, construction, and safe, dependable execution in a high-security environment. DNP has successfully handled a wide range of assignments, including back-office operations involving the processing of millions of units, formulation of marketing policies, website construction and operation, and operation of customer contact centers and social media-based offices.

Making the most of our track record, skills and knowledge, DNP responded to the increasing demand for BPO services by establishing two new BPO centers in December 2015, one in Tokyo's Toshima Ward and one in Sendai, to supplement our three existing centers in Tokyo's Kita Ward, Osaka, and Nagoya. From 2016, we will reliably meet the outsourcing needs of businesses and organizations in areas like adjusting to Japan's new "My Number" citizen numbering system and liberalization of gas and electricity sales, and supporting digital marketing, e-commerce, and healthcare.

By expanding our BPO business, DNP is responding to dizzying changes in the business environment in ways that contribute to the development of a sustainable society.



# Lifestyle and Industrial Supplies



Top: Photovoltaic panels Bottom (from left): Interior material (floor covering) for residential use; Culture film for bacterial testing

## Business Strategies

The Lifestyle and Industrial Supplies segment is composed of three business divisions: Packaging, Lifestyle Materials, and Industrial Supplies. The segment plays a vital part in our corporate clients' manufacturing processes and provides many products and services that are important in the daily life of consumers. DNP's Packaging business creates many of the packages that consumers use in daily life, including packaging for foods and beverages and for pharmaceutical products. Lifestyle Materials handles a wide variety of products that form the spaces in which consumers live, such as floor and wall coverings, residential exterior products, and automotive interior products. Products provided by Industrial Supplies include components used in photovoltaic cells and lithium-ion rechargeable batteries.

Products and services that are indispensable to comfortable living must also contribute to people's safety and sense of security. They must be designed with consideration for universal design principles so they will be easy for most consumers to use. In our development and production activities, we must also consider energy conservation and cleaner energy sources, minimize stress on the environment caused by the use and disposal of our products, and work to preserve biodiversity. Our strategy for the Lifestyle and Industrial Supplies segment is to anticipate the diverse needs of businesses and consumers in Japan and overseas and create new value that enriches people's lives while fulfilling all of the above criteria.

DNP has identified four growth areas where we see the potential to develop new value beyond our existing business unit boundaries: Knowledge and Communication; Food and Healthcare; Lifestyle and Mobility; and Environment and Energy. We will speed up business creation by making use of technologies and expertise cultivated within our segment, engaging in dialogue and cooperative efforts both within and outside of our corporate Group, and by actively collaborating with research institutes and companies that have relevant strengths.

\* In April 2015, DNP's Imaging Communication business, which mainly handles materials used in photo printing, was transferred from Lifestyle and Industrial Supplies to the Information Communication segment.

## Main Policies

### Packaging

#### Develop eco-friendly, advanced products and services worldwide

- Reduce the burden that we place on the environment; actively develop eco-friendly products and services that also help preserve biodiversity.
- Enhance lineup of advanced products with outstanding functionality including preservation of package contents.
  - Transparent films that are exceptionally impermeable to oxygen and water vapor
  - Packaging made from plant-derived materials or other recyclable resources, etc.
- Make use of overseas production bases to promote global packaging business.
- Develop packages that are easy for anyone to use, in accordance with universal design principles.
- Study and analyze consumers' awareness and hands-on interaction with packages that contain everyday items like foods, beverages, and household items.

### Lifestyle Materials

#### Provide new value in all kinds of spaces where people live their lives

- Enhance lineup of products that use DNP's original electron beam (EB) coating technology.
  - Develop and supply products such as interior and exterior materials with strong scratch and soil resistance and other outstanding characteristics including weatherability.
- Develop a variety of businesses that address entire living space-related supply chains.
  - Examples: measurement and assessment of living environments, living space design, proposals based on considerations like Kansei (sensitivity) engineering, and development of easy-to-implement construction techniques
- Develop new products and services needed for the realization of smart cities and smart houses.
  - Metal panels and other materials that save energy by effectively reflecting and diffusing light
- Use DNP's global business networks to expand our market share in Europe, the Americas and emerging countries.

### Industrial Supplies

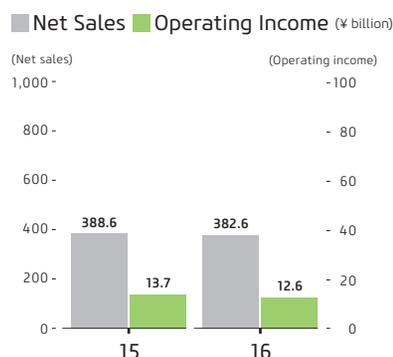
#### Develop sophisticated products and services that take advantage of DNP's strengths in advanced materials

- Develop products and services, in Japan and overseas, that make use of DNP's original converting (materials processing) technologies; provide new value especially in three growth areas: Food and Healthcare, Lifestyle and Mobility, and Environment and Energy.
- Pouches for lithium-ion batteries: Take advantage of our strength as the world's number one supplier to expand applications beyond mobile telecommunications devices to include, for example, electric vehicles and household-use storage batteries.
- Photovoltaic module components: Develop back sheets, encapsulants and other components that help increase the conversion efficiency and reliability of photovoltaic cells.
- Develop products and services like advanced films that control heat and/or light, for use in fields like automobiles and agriculture.

# Financial Results

## Financial Highlights

	(¥ billion, %)	
	2015.3	2016.3
Net sales	¥ 388.6	¥ 382.6
Operating income	13.7	12.6
Operating income margin	3.5%	3.3%



### Net sales

In addition to pouches for lithium-ion rechargeable batteries used in smartphones, tablet PCs and automobiles, photovoltaic module components also sold well. On the other hand, Packaging saw slack sales of paper and film packaging products and aseptic PET plastic bottle filling systems, while a lagging recovery in residential construction demand caused Lifestyle Materials sales to fall below the previous year's level. Overall segment sales dipped 1.5% or 5.91 billion yen compared to a year earlier.

### Operating income

Operating income declined 7.9% or 1.08 billion yen year on year, largely due to decreased sales related to Packaging and Lifestyle Materials. The segment's operating income margin decreased by 0.2 point, from 3.5% a year earlier to 3.3%.

\* In April 2015, Imaging Communication business was transferred to the Information Communication segment from the Lifestyle and Industrial Supplies segment. Figures for the term ended March 2015 in the chart above have been adjusted to reflect the new configuration of the Lifestyle and Industrial Supplies segment.

## Fiscal Term through March 2016: Business Environment and Summary of Financial Results

### Packaging

The business environment in this sector remained harsh in the fiscal term ended March 2016 as stagnant wages encouraged consumers to further tighten their purse strings, resulting in continued sluggishness in individual consumption.

Despite these conditions, Packaging enjoyed solid sales of paper cups used as food packaging as well as plastic molded products. Nevertheless, the downturn in sales of aseptic PET plastic bottle filling systems and paper and film packaging products caused overall packaging sales to decline relative to a year earlier.

Going forward, we will reinforce our production bases in Indonesia and Vietnam and focus on expanding our share in Southeast Asian markets. In Japan we are working to further increase Packaging's competitive position, for example by reorganizing factories that make sake (rice wine) cartons and other paper containers for liquids, and by implementing overall optimization in order to boost production efficiency. In addition, we will strive to expand our lineup of packaging products that are eco-friendly and easy for all types of consumers to use, and we will push ahead with development of new products and services for the medical care, pharmaceutical, and healthcare fields as well as for industrial materials and other fields that are new to us.

### Lifestyle Materials

According to Japan's Land, Infrastructure, Transport and Tourism Ministry, Japanese housing starts grew by 4.6% year on year to about 920,000 units, marking the first increase in two years. Nonresidential (office buildings, commercial facilities, etc.) and condominium construction were slow, partly due to work interruptions arising from building cost increases.

Given this environment, DNP's Lifestyle Materials business focused on selling eco-friendly products made with DNP's original electron beam (EB) coating technology and other high-added value products that offer outstanding design and functionality. Although we worked hard to increase our market share, sales ended below the previous-year level amid increased price competition.

Going forward, we will focus on developing and selling more energy-efficient, eco-friendly products and strive to increase our market share especially for products made with EB coating. In addition, we will work harder at selling

to overseas manufacturers, mainly by offering Arttec decorative aluminum plate for interior and exterior use, other types of decorative metal paneling, and automotive interior materials. Furthermore, by increasing cooperation between industry, government and academia, we plan to create new value that will allow us to offer greater comfort and luxury in a variety of living spaces including homes, offices, commercial facilities and vehicles.

### Industrial Supplies

Domestic shipments of industrial-use photovoltaic cells in the fiscal term through March 2016 amounted to 7,136,677 kilowatts, down 23% (in terms of power generation capacity) from their peak a year earlier according to the Japan Photovoltaic Energy Association. Domestic demand for photovoltaic cells for both residential and nonresidential use has been on the decline as revisions to Japan's feed-in tariff scheme (fixed purchase prices for power generated from renewable sources) have resulted in falling purchase prices. However, demand remained firm for photovoltaic panels that offer outstanding power generation efficiency. Also among DNP's encapsulants,

back sheets and other photovoltaic module components, there was an increase in sales of high-performance, highly durable products that improve power generation efficiency.

Meanwhile, DNP's pouches for lithium-ion rechargeable batteries, which are lighter in weight and easier to process than metal alternatives, are among the most popular in the world. In the first half of the fiscal year ended March 2016, demand for pouches used in smartphones and tablets increased sharply, while the second half saw a rise in automotive demand, which is expected to continue to increase in the future. Overall, pouch sales exceeded the previous-year level.

Looking at the future of DNP's components for both photovoltaic cells and lithium-ion rechargeable batteries, in addition to using our proprietary converting (materials processing) technologies to boost functionality, we intend to develop highly reliable new products and actively expand our business overseas where demand is robust. We will also continue to work on expanding our business involving advanced materials such as films that control light and heat, and high-added value barrier films for industrial applications.



#### Expansion of Packaging operations overseas

### Providing high-quality packaging to the ASEAN region where strong growth is expected

In order to spread "Japan's excellent packaging culture" to the rest of the world, DNP founded PT DNP Indonesia in 1972 and DNP Vietnam Co., Ltd. in 2013. By handling all of our manufacturing processes in-house and providing high-quality products and services that meet a variety of needs, we have built strong relationships of trust with our corporate clients. In Indonesia we hold the top share of the market for packaging in many fields including household items and foods. We have also established an overwhelming competitive advantage in the ASEAN region by providing high-quality packaging products through local partnerships with companies that make cosmetics and sporting goods for the global market.

As an example of how we add value and functionality through product development, we take high-quality packaging materials developed in Japan, such as materials used in retort pouches or

plastics with outstanding oxygen and moisture barrier properties, and develop local versions of products that are tailored to the characteristics and needs of Southeast Asian markets. For example, in Indonesia, market stalls display products like shampoo and laundry detergent in "sachets," or small packets linked together and suspended from the stall's ceiling. Sachets provided by DNP offer the added advantage of strong oxygen, moisture, and light barrier properties that protect package contents during prolonged exposure to the outside environment.

DNP aims to be "Asia's No.1 packaging company." Toward that end, we will leverage our outstanding technologies as a leader in the packaging field, further reinforce our production framework in the ASEAN region where strong economic growth is expected, and continue to provide high-quality products and services.



Making rolls of printed film



A market stall in Indonesia

# Growth Businesses and Strategic Businesses

## Packaging

### Focus on expanding eco-friendly, advanced products worldwide

DNP engages in a wide variety of packaging operations in Japan and overseas with the aim of becoming the “No.1 partner” of corporate clients and consumers. As part of our efforts to help meet worldwide demand for affluent and convenient lifestyles that place minimal burden on the environment, we are working on developing new materials and designing high-performance, easy-to-use packages.

Domestically, our packaging business aims to respond flexibly to changes in the Japanese market. For example, because of the falling birth rate, rising average age and diversifying lifestyles, Japan has growing numbers of single-person households and seniors eating alone, which translates to more demand for single-portion foods and ready-to-eat dishes. We are also seeing increasing demand in medical, pharmaceutical, and healthcare fields for safe and hygienic packages that can be used with confidence, and in the manufacturing field for simple and convenient packaging for industrial materials, including for shipment between factories. At DNP, we respond to these needs by viewing them subjectively from a consumer’s point of view and by working

together with corporate clients to improve packaging functionality and to develop added value.

Overseas, one of our main policies is to expand our business in the Asian region. By taking advantage of factories that we already have in Indonesia and Vietnam, we will continue to provide high-added value products and services for overseas clients including Japanese-affiliated companies operating overseas.

DNP will also seek to expand profits from a standpoint of overall optimization. Domestically, we will reorganize our production bases under a framework that oversees sales and manufacturing functions on a nationwide basis. We will continue to expand our packaging business in Japan and overseas, armed with the comprehensive strength that enables us to handle every aspect of the business including anticipating changes in society and in the needs of consumers and corporate clients, applying “universal design” principles, market analysis and project planning, package design and manufacturing, sales promotion and marketing support, and supply of aseptic filling systems and other packaging systems.

### Tanabe Plant acquires controlled medical devices retailer license

In March 2015, DNP’s plant in Tanabe, Kyoto Prefecture, acquired a controlled medical devices retailer license, allowing it to sell controlled devices such as blood collection kits and electronic thermometers. The factory already had a general manufacturing (packaging, labeling and storage) license, which is required for packing medical devices together with their instruction manuals, etc. Now that the plant has both licenses, it can purchase controlled medical devices from pharmaceutical or medical device manufacturers, package each device with its instruction manual, and sell them directly to distributors.

Besides the Tanabe Plant, DNP has four other plants nationwide, including one in Tokyo and one in Nagoya, that are licensed for packaging and storing pharmaceuticals and medical devices. We plan to use these clean environments to continue to expand businesses that reduce the work loads of pharmaceutical and medical device manufacturers.

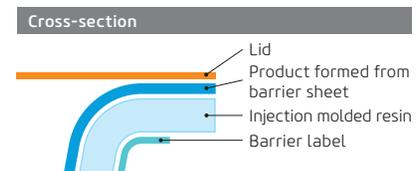


Operations at the Tanabe Plant

### The rectangular “Viewbell Cup” responds to Japan’s increasingly common single-person households

In Japan, people are living longer and having fewer children, and more women are working outside the home. With household size shrinking, single-person households becoming more common and lifestyles becoming increasingly diverse, we are hearing calls for the development of new products and points of sale that fit Japan’s changing dining table. In response to these new market needs, DNP developed its rectangular “Viewbell Cup,” an artistically designed plastic container that can be heated in a microwave oven.

The cup is a composite high-barrier container created by combining a molded product, made from barrier sheet that blocks the passage of air and moisture, with a barrier in-mold label formed from transparent vapor deposition film. Aimed at meeting the needs of people living alone or working couples who want to save time in the kitchen, the cup is suited to holding a small amount of pre-prepared food. It is also an ideal container for foods intended for senior citizens or nursing care patients, since the contents can be heated by microwave without the need to use a flame. DNP will continue to develop containers that have new value in response to various changes in the social landscape.



DNP’s in-mold label container (Viewbell Cup)

## Develop global businesses addressing all kinds of spaces where people live their lives

DNP views its field of business as extending to all the spaces where humans live their lives, including homes, offices, medical, nursing care and commercial facilities, automobiles and passenger cars on trains. We develop and supply products and services that offer various types of value to enhance these spaces. As we work to expand this sector, we keep in mind goals like enabling safe, carefree, healthy and comfortable lifestyles, adapting to aging populations and a smart society, and reducing energy consumption and stress on the environment.

DNP has applied for more than 1,000 patents related to our proprietary electron beam (EB) technology. We receive much praise from corporate clients and consumers for the very durable, highly scratch- and soil-resistant interior and exterior products that we make by taking advantage of EB technology, and our share of relevant markets has been growing, especially within Japan. In addition, we are actively



developing products with very attractive designs by using digital technologies that support high-definition image processing in order to create wood grain and other patterns. We are also working hard at expanding overseas. In response to demand in North America and other parts of the world, we are reinforcing sales of such products as residential decorative materials, automotive interior materials, and decorative metal panels for large buildings.

In order to create comfortable living spaces for consumers, we enhance both the functionality of our products (mainly by applying EB technologies) and the aesthetic appeal, by applying our image processing technologies and planning and design skills. At the same time, we provide comprehensive new value addressing every aspect from materials development to space design, coordination, and development of construction methods that place less stress on the environment.



### Development of decorative metal paneling contributes to a variety of pleasant spaces

DNP supplies decorative metal plate made by directly printing or painting a wide variety of designs, including wood grains, stony textures and artistic patterns, onto steel plate, stainless steel, aluminum or other metal paneling which is then used for a wide variety of purposes. These products, consisting of fire-resistant metal decorated with realistic textures and luxurious-looking designs, are strong yet easy to work with. They are used in a wide variety of applications including front entrance doors, bathroom wall panels, elevator and train car interiors, and exterior panels for household appliances.

Since we began full-fledged sales of Arttec decorative aluminum plate for interior and exterior use in 2015, we have gotten very positive feedback from architects and designers who praise this original, high-added value paneling for exuding a sense of custom-made luxury and lending a relaxed ambience and sense of dignity to large-scale public buildings including residential facilities. Arttec plate can be made to express new textures or the timeless beauty of natural materials like wood, stone or metal. The shape and construction method can also be chosen according to the style and purpose of the space where the material will be used. Other advantages are light weight and

excellent weatherability and fire resistance.

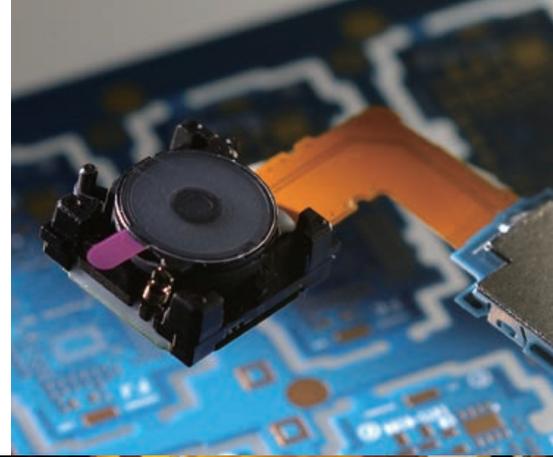
So far Arttec has been adopted as an interior material used in many passenger train cars, including for Japanese bullet trains and special express trains, and England's high-speed Channel Tunnel Rail Link. In recent years, Arttec plate has attracted the attention of the construction industry as a lightweight yet highly durable material. It was used on the exterior of the Under Armour Brand House that opened in Chicago in the spring of 2015; the building was selected as "Store of the Year" by the Association for Retail Environments in recognition of its design. Due to Arttec's high-quality design and functionality, it is being used increasingly in building construction not only in Japan but overseas as well.

Going forward, DNP will continue to promote new designs and expanded applications for Arttec, and will also respond to demand from building contractors in North America and other parts of the globe, in order to promote the business overseas.



Under Armour Brand House (Chicago)

# Electronics



Top: Camera module Bottom (from left): Display system for ultra-short focus projector; Electrode film for use in capacitive touch panels; Nanoimprinting development lab

## Business Strategies

Modern life has become richer and more convenient due to growing use of digital household appliances, high-definition display products, and mobile information terminals including smartphones and tablet PCs. Given the massive amount of information circulating in today's society, demand for easy-to-use information devices that make use of cutting-edge technologies is becoming increasingly diverse, and changes are occurring more rapidly than ever.

DNP's Electronics segment includes Display Components and Electronic Devices, primarily for the electronic equipment market. The segment refines and combines existing DNP technologies and works to create new core technologies in order to provide products, services, and systems that anticipate changes in the needs of businesses and consumers. We are working especially hard on providing new value in fields including automobiles, smart houses, medical and health care, and environment and energy by combining cutting-edge technologies like fine patterning and ultrafine etching.

We endeavor to develop new products with high added value and exceptional functionality while keeping our eye on next-generation trends in electronic products. As we do so, we actively seek to collaborate with corporate clients and/or companies that have specialized strengths, in order to speed up business development. In addition, we intend to develop technology licensing arrangements and other types of alliances or royalty businesses. DNP's Electronics

segment will continue striving to add new value to, and to improve the quality and functionality of our existing lineup of products including liquid crystal color filters, antiglare films, viewing angle control films and other optical films, semiconductor photomasks, sensors and other touch panel components, and vapor deposition masks (metal masks) for making organic EL panels.

In order to improve profitability, we will continue to select and concentrate on the most promising products in our lineup, and to meticulously cut costs and boost efficiency, for example by optimizing use of our production bases in Japan and overseas from a global standpoint.

## Main Policies

Amid major changes in the business environment surrounding electronics in Japan and around the world, we will concentrate management resources on the development of products, services, and systems that can be expected to lead to sustainable growth.

In contrast to the conventional investment recovery-oriented business model whereby we recouped large investments in production equipment by supplying large amounts of components, we will increase cooperation with customers, suppliers and other partners and develop process solution services that broaden the scope of our business to address the entire supply chain including materials, design and equipment.

### Display Components

#### Display Components (including liquid crystal (LC) color filters and metal masks for making organic EL displays)

The growth in smartphones that had been driving this sector has slowed, while worldwide television shipments remain flat from year to year. We will focus on meeting demand for small- and medium-size LC color filters, and for higher-definition products, as well as on reinforcing our framework for producing metal masks used in organic EL displays.

- Alongside this focus on LC color filters for small- and medium-size displays, we will also promote product supply in growing fields like automotive and medical equipment.
- Promote cost structure reforms including equipment optimization and the rethinking of development and production systems.
- In developing products related to newer fields like touch panels and organic EL displays, we will make effective use of our strongest technologies and existing equipment while reinforcing cooperation with business partners.

#### Optical Films

Continue developing new products and making proposals based on a thorough grasp of market needs while further refining our core technologies.

- Anticipate market trends and respond to the market's often conflicting demands, such as for higher resolution, a wider color gamut, larger size, lighter weight, decreasing thickness, greater energy efficiency and higher performance.

- Expand our new product lineup by promoting cooperation between our color filter and electronic devices businesses and blending core technologies.
- Broaden DNP's product lineup in the market for display surface materials by adding products geared toward organic EL and other new types of displays in addition to the LC market that we already serve.
- Develop viewing angle control film for use in car navigation systems and other in-vehicle displays, and for preventing glare on automobile windshields.
- Work harder at getting into clean converting products other than polarizing plate surface films.

### Electronic Devices

Generate new business models and strengthen our global focus.

- Use overseas production bases to actively take up worldwide demand and keep a solid grip on one of the world's top shares in the market for semiconductor photomasks, particularly for advanced products with line widths of 28nm\*<sup>1</sup> or less, while enhancing development and supply frameworks for cutting-edge, 14nm products.
- Continue to focus on commercializing next-generation microfabrication technologies such as nanoimprinting\*<sup>2</sup> and extreme ultraviolet (EUV) exposure\*<sup>3</sup>.
- Develop solutions-oriented businesses that apply nanoimprinting technologies in fields other than semiconductors where microfabrication is required.
- In addition to single electronic devices that use etching technologies, such as lead frames or hard disk drive components, expand into solutions-oriented businesses including packaging.

\*1 nm (nanometer): one billionth of a meter

\*2 Nanoimprinting: a semiconductor manufacturing technique that entails physically transferring a pattern to a resin-coated silicon wafer by pressing a template bearing a minute pattern against the wafer

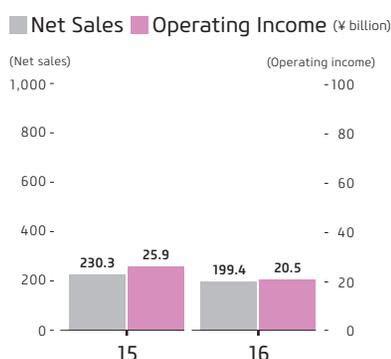
\*3 Extreme ultra-violet (EUV) exposure: a technique for using ultraviolet rays with extremely short wavelengths to burn minute circuit patterns onto wafers

# Financial Results

## Financial Highlights

(¥ billion, %)

	2015.3	2016.3
Net sales	¥ 230.3	¥ 199.4
Operating income	25.9	20.5
Operating income margin	11.2%	10.3%



### Net sales

DNP enjoyed strong sales of vapor deposition masks (metal masks) used in the manufacture of organic EL displays, which offer tremendous promise as next-generation displays. However, sales of color filters used in liquid crystal displays (LCDs) declined for both small- and medium-sized products used in smartphones and tablet PCs and large products used in televisions. Sales of anti-glare film, the mainstay of our optical film business, also declined. Sales of photomasks used for making semiconductors increased overseas, but were sluggish within Japan.

Overall, Electronics segment sales declined by 13.4%, or 30.96 billion yen, compared to the previous year.

### Operating income

Depreciation and amortization expenses declined year on year by 3.37 billion yen, mainly due to decreased major capital spending and sales of surplus equipment. However, smaller net sales and lower unit prices resulting from increased competition caused operating income to decline by 20.8%, or 5.40 billion yen from a year earlier. The segment's operating income margin decreased by 0.9 point, from 11.2% a year earlier to 10.3%.

## Fiscal Term through March 2016: Business Environment and Summary of Financial Results

### Display Components

According to one research company's figures, worldwide shipments of flat-panel televisions in calendar 2015 totaled about 240 million units, or roughly even with the previous year, due largely to depreciated currencies and economic stagnation in emerging markets. Smartphone shipments reached about 1.44 billion units, up 10% from a year earlier, but given that the Chinese market—the world's largest market—has matured, further double-digit growth is considered unlikely. About 200 million tablet PCs were shipped, down 10% year on year, while personal computer shipments amounted to some 270 million units, also down 10%, apparently due to smartphones eating into the markets for both types of products.

Given these conditions, DNP focused LC color filter production on its 8th-generation manufacturing lines, which make large-scale panels used in ultra high-definition televisions, but sales of large filters fell below previous-year levels along with medium-sized and small products. We saw growth in sales of some types of optical films, notably those used for projection screens, but sales of our mainstay anti-reflection films used for televisions and smartphones declined relative to a year earlier. Meanwhile, spurred by growing demand for organic EL displays, we enjoyed year-on-year growth in sales of metal masks used in their production, and maintained a large share of the market for these products by making use of DNP's proprietary photolithography and etching technologies.

Going forward, worldwide smartphone shipments in calendar 2016 are projected at around 1.5 billion units, representing an increase of 7-8% over 2015 and a slowdown from the double-digit growth of the past several years. Furthermore, growth in smartphone sales revenues is expected to be limited even more than growth in the number of units shipped, due to increasing sales of low-priced phones from Chinese manufacturers, particularly in the emerging markets that are driving expansion of the smartphone market.

In light of these projections, DNP is pursuing a plan to transfer color filter manufacturing equipment from its Mihara Plant in Hiroshima Prefecture to an LCD glass maker in China, probably by the end of March 2017. By continuing to provide technical and other support, we will continue to benefit from business opportunities presented by growth in the Chinese LC market. We will also focus on developing new color filters that can support high-brightness, energy-efficient LC displays. In addition, we intend to develop

touch panel films that accommodate increasingly large-sized displays, to work at securing orders for components for high-end smartphones that deliver very sharp images, and to focus on developing new products that support new applications including in-vehicle displays. Regarding organic EL displays, we intend to respond to growing demand for metal masks and maintain our dominant share of the market by boosting production capacity.

### Electronic Devices

Year-on-year growth in the world semiconductor market was basically flat in calendar 2015. While demand is expected to grow in 2016 in such fields as digital appliances and automobiles, primarily in the U.S. and Asia, the overall forecast is quite dim, with the market expected to shrink by about 2% amid a continued slump in sales of smartphones and personal computers.

In the fiscal year ended March 2016, DNP's Electronic Devices business enjoyed increased sales of photomasks used for making logic products for sale in China and Taiwan but was negatively impacted by lower prices for photomasks used for making flash memories in Japan. Among other factors that contributed to lowering sales compared to the previous year was the April 2014 deconsolidation\* of DNP Photomask Technology Taiwan Co., Ltd., our production base in Taiwan.

In the future, we expect to see even more widespread use of the Internet of Things (IoT) that links all kinds of everyday objects to a network. Concerning mobility, trends like growing usage of electric and hybrid automobiles and the transformation of automobiles into information terminals that receive a variety of services are boosting prospects for growth in a variety of electronic devices. In collaboration with a number of companies in Japan and overseas, DNP is working to expand its sales of cutting-edge products with line widths of less than 20nm and continuing to provide photomasks for flash memories and other products. Concerning the use of nanoimprinting technologies in ultrafine processing, we intend to offer nanoimprinting innovations that comprehensively support every aspect of production including planning and development of applications and products, design and production of dies and prototypes, and mass production. We also plan to develop new products outside of the semiconductor arena, such as medical materials.

DNP is working on improving the profitability of products that take advantage of our etching expertise by shifting our emphasis to higher-added value products. Regarding lead frames, we have seen increasing demand for metal substrates used in LED lighting in the Chinese and Taiwanese markets. Going forward, we aim to increase sales of high-added value products with reflectors attached, and to develop lead frames for the smartphone market. We also aim to increase our share of metal substrates for IC packages used in power semiconductors. In the year ended March 2016, sales of hard disk drive (HDD) components for personal computers were slack as demand for HDDs declined amid growing use of solid-state drives that offer greater capacity and faster processing. Demand declined for substrates with embedded components used in cameras, a mainstay of our electronic modules business, but we are also focusing on telecom-related modules for the future, as well as developing substrates with embedded components for wearable devices.

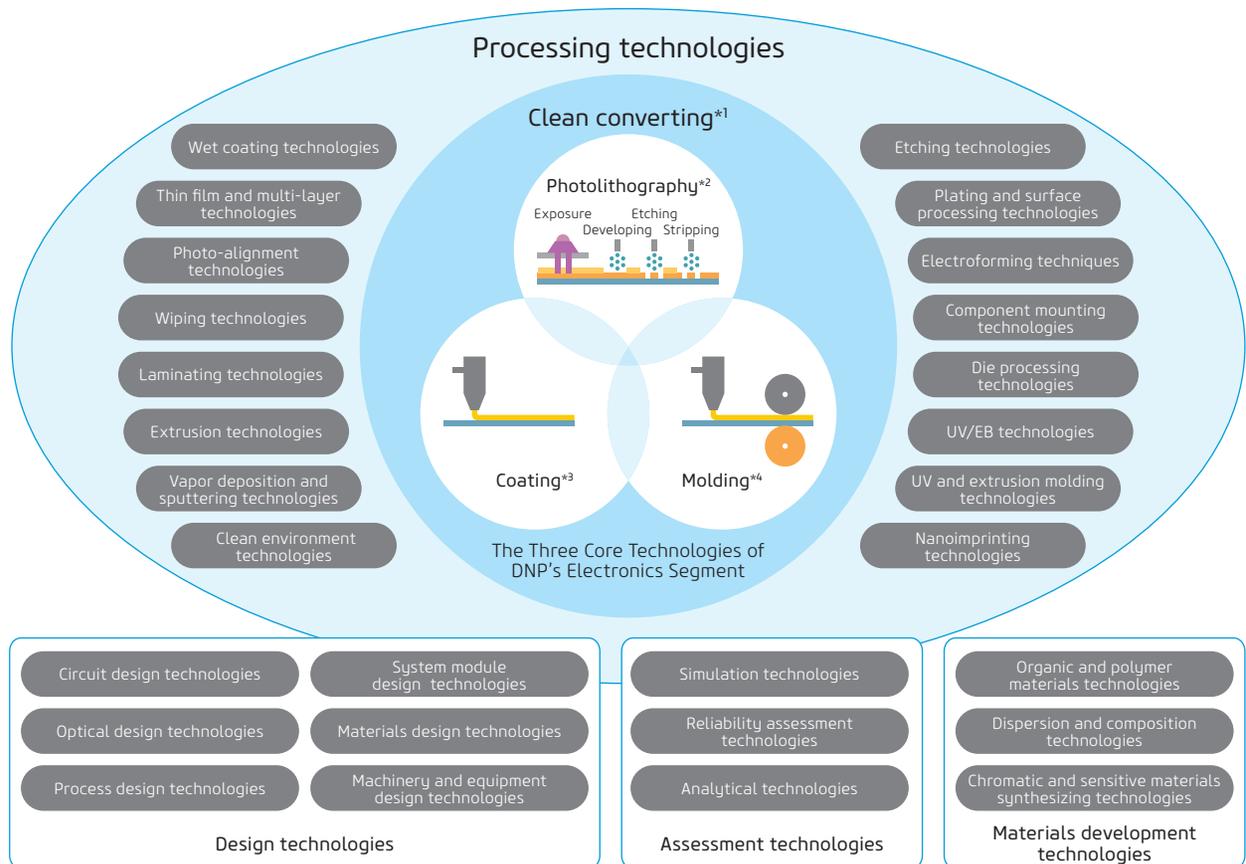
\* In April 2014, DNP subsidiary DNP Photomask Technology Taiwan Co., Ltd. merged with Photronics Semiconductor Mask Corp., which specializes in photomask production technologies, to form Photronics DNP Mask Corporation. The new company became an equity-method affiliate of DNP, with DNP owning 49.99% of its common shares.

# Growth Businesses and Strategic Businesses

## Innovations born of DNP's core technologies

For more than half a century, DNP has been developing a wide variety of electronic components by applying the photographic plate-making skills that we cultivated through our printing business, and by refining technologies for applying uniform coatings and the photolithography

and etching technologies that enable us to make extremely fine patterns. The various products and systems that DNP supplies improve the functionality and operability of the electronic devices that consumers use.

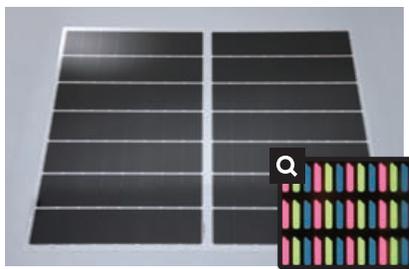


\*1 Clean converting : A combination of optical technologies and other technologies, such as technologies for applying precision thin-film coatings or for precision molding. Based on our strength in these areas, DNP has developed a wide range of optical films including anti-glare films and other films used on liquid crystal displays (LCDs). Going forward, we intend to actively respond to display market trends such as higher definition, increasing multi-functionality and greater energy efficiency, and to provide a wide variety of products that only DNP can provide by virtue of our solid grasp of the properties of light.

\*2 Photolithography: A process by which images on a form plate are burned onto a resin or metal plate that has been coated with photosensitive material.

\*3 Coating: Applying and fixing ink or another material, from a printing plate to which it has first been applied, onto paper, film or another material.

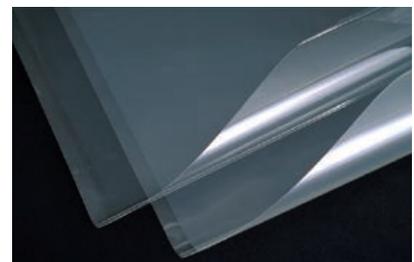
\*4 Molding: Technologies for forming minute shapes on the surface of film. Stamping with a die that bears minute shapes in order to form minute shapes on the surface of a polymer material that has been made somewhat fluid by heating or dissolving.



Color filter  
(magnified view at lower right)



Semiconductor photomask



Optical films used for displays

## Contributing to more widespread usage of organic EL displays

Organic EL displays are attracting attention as good candidates to form the next generation of displays since they are made of fewer components than LCDs. Not only can they be made thinner than LCDs, but they can also withstand bending and curling. An organic EL display works by sandwiching layers of organic molecules between positive and negative electrodes, making the organic molecules self-luminous. Organic EL displays deliver excellent contrast. In recent years they have become more widely used in smartphones. According to a report issued by U.S. research firm IHS Inc., the market for organic EL panels is expected to grow to about 682 million units in 2020, or almost three times the 2015 level.

There are two methods for getting organic EL panels to express a full range of colors. One is to line up organic materials on the substrate very precisely, in the three primary colors of light (red, green and blue or RGB), pixel by pixel. The other method is to light up the whole surface of the panel with white light and use RGB color filters to color the light. In the case of the former method, a vapor deposition mask (also called a metal mask, a thin metal plate with precisely arranged minute holes) is used to apply the colored organic materials separately onto the substrate, which is usually made of glass or plastic. The metal masks are used under vacuum conditions for each of the three primary colors; the organic material is vaporized and sprayed onto the substrate (vapor deposition). DNP began developing a metal mask in 2001 by applying our original photolithography and etching technologies. Currently we hold a large share of the market for metal masks used for making smartphone displays.

As mobile devices become increasingly high-definition and their displays become larger, the RGB organic materials must be precisely arranged during vapor deposition in order to enable the display of sharp images. This vapor deposition is one of the more difficult processes in the manufacture of organic EL panels, and manufacturers demand a high degree of precision in metal masks. DNP has wide-ranging expertise and holds patents related to various aspects of metal masks, including materials and manufacturing methods to use for making them. We have received much praise for our outstanding capacity for technological development and ability to offer stable supplies of high-quality, high-precision products. Looking ahead, DNP intends to respond to the rapidly growing market for metal masks by continuously investing in related equipment. By 2020 we plan to spend a total of 6 billion yen and triple current production capacity. By responding to even further increases in high definition, we aim to further broaden the advantage that we already enjoy as the overwhelmingly largest supplier of metal masks used for making smartphones. Our goal is some 30 billion yen in net sales of metal masks in 2020.



## Advanced optical films enable the rich expression of information

In 1990, DNP made use of coating technologies it had cultivated through printing as it began developing low reflection film that reduces glare on displays and delivers images enhanced by sharp contrasts. Low reflection film is a transparent film that reduces glare when light reflected from the top and the bottom (interface) of the film interferes with each other so that the reflected light is canceled out. In order to ensure that this happens, we need to adjust the refractive index and the thickness of the low reflection layer with which we coat the film. (See illustration on page 118.) In 2014, we developed ultra-low reflection film that is both highly soil-resistant and significantly reduces glare from indoor light. Thanks to DNP's knowledge and skills, in addition to having an ideal reflectance ratio—the factor that determines how easy (or not) it will be to view images—the product is hard enough that it resists scratching. In other words, it is difficult for light to bounce off of this film, and difficult for scratches to stick to it. DNP holds

a top share of the world market for anti-reflection films, which include anti-glare films that work according to a different principle from the low reflection film described above.

In 2015, we used molding technology to develop a new type of viewing angle control film, which is most often used for the displays of in-vehicle navigation systems. This optical film has minute louvers that control the angle at which light is reflected. In addition to preventing glare on the windshield from the display, the film also improves the brightness and visibility of the navigation screen. These optical characteristics—the product of DNP's original design technologies—are highly regarded in the industry and have been adopted by overseas car manufacturers.

DNP will always remain one step ahead of the times as we address new challenges and provide high-added value optical film products to markets around the world.