

Segment Information

CONTENTS

42 Information Communication

42 Business Strategies

44 Financial Results

46 Lifestyle and Industrial Supplies

46 Business Strategies

48 Financial Results

50 Electronics

50 Business Strategies

52 Financial Results





Information Communication



Left: DNP cloud payment services for smart devices Right: Books and magazines

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 just reacting to those changes, DNP is developing a wide range of businesses that enable us to generate changes ourselves by "delivering the information that consumers want, when they want it, in optimal media formats."

The Information Communication segment includes businesses related to Publishing & Media Services, Marketing, Information Security, Education and Publications Distribution, and Imaging Communication, with the latter addressing all aspects of imaging.

Our Marketing unit has begun sales activities in the form of consulting aimed at solving the problems of client companies from the consumer's point of view. In October 2016, we established a new company, DNP Communication Design Co., Ltd., by integrating planning and production functions that had been operating separately within multiple business units. In April 2017, we launched DNP Digital Solutions Co., Ltd., which specializes in system integration. We intend to make effective use of these planning, production, and other systems as we work to solve various problems.

Our Business Process Outsourcing (BPO) business comprehensively handles business processes outsourced by client companies. After establishing two new operating locations in June 2017, we now have 13 BPO centers throughout Japan that will serve as the main venues from which we will work to further expand this business. We plan to do the groundwork for a new business offering new types of settlement services, including international brand prepaid cards and cloud payment services. We will also provide new value through businesses like our "honto" hybrid bookstore network that offers both paper and electronic media, and by developing diverse services that combine photographic prints with information services.

In addition, we will promote dynamic structural reforms aimed at expanding earnings, for example by constructing a unified system for supervising our manufacturing operations throughout Japan.

Main Policies

1 Generate value by expanding business, primarily in growth areas

Of the four growth areas in which DNP has decided to concentrate, the Information Communication segment will focus particularly on creating new value and resolving social issues in the area of “Knowledge and Communication.” With digital networks reaching the entire globe and information services becoming more sophisticated in recent years, security measures that protect against various third-party threats have become very important. DNP uses the phrase “Internet of secure things” (IoST) to express its commitment to making the Internet of things (IoT) safe as well as highly convenient, and we plan to develop businesses that make use of our strengths in information security.

Generate new value in areas such as publishing and media, publications distribution, and educational information and communication technology (ICT)

- Increase sales by the “honto” hybrid bookstore network that links online sales of e-books and paper books through the honto website with sales at bricks-and-mortar stores operated by MaruzenJunkudo Bookstores Co., Ltd. and Bunkyodo Group Holdings Co., Ltd.
- In addition to producing printed materials, expand businesses that are peripheral to publishing, for example reader services and marketing that makes use of magazine brands and/or published content.
- Provide comprehensive solutions for linked production of paper books and e-books, and for on-demand printing of small lots, etc.
- In addition to providing an electronic library system, promote community-building, for example by combining bookstores with libraries in order to create venues where people can get together.
- Provide all types of textbooks and specialized books in hybrid (paper/electronic) form, in order to promote adoption of information and communication technologies in educational settings.

Promote various businesses that make full use of DNP's solid information security technologies and infrastructure

- Make use of our 13 business process outsourcing (BPO) centers in Japan in our effort to expand DNP's BPO business. Examples of these operations include market research and problem analysis; design, construction and implementation of optimal business processes; operation of customer service centers; and production and shipping of promotional materials.
- Use DNP Kashiwa Data Center to develop international brand pre-paid cards and debit settlement services, etc. in response to diversifying needs related to settlement methods and information security. Provide unique settlement services that can be easily adopted by a wide range of industries such as those engaged in finance or distribution.

Expand DNP's business value from consumers' point of view, by taking advantage of big data and helping both inbound and outbound travelers

- Use multilingual translation platforms and focus on stimulating communication between consumers and companies in various countries and regions.

- Expand various services that enliven outlying regions in response to the growing number of foreign visitors to Japan (inbound travelers) and Japanese going overseas (outbound travelers).

Expand Imaging Communication operations, which make businesses out of everything to do with imaging

- Focus on expanding the scale of operations of the DNP Imaging Mall, which engages in printing and sales of images recorded at sporting or other events.
- Uncover new value in Japanese and/or overseas photo imaging markets that people experience as fun, happy, entertaining, easy, or convenient, etc., and offer it in the form of products and services.

Provide digital marketing services

- Use consulting, settlement data, and client analysis based on DNP's original systems in order to address corporate clients' marketing issues and propose plans for optimal sales campaigns, including promotions that use smartphones or tablet computers.

2 Provide value to the global market

- Develop publishing-related businesses in Japan and overseas by increasing cooperation with publishers; planning, producing, distributing and selling all types of publications; making use of content and magazine brands; and promoting copyright processing, etc.
- Boost the competitiveness of the smart card businesses that we operate in Southeast Asia together with major Indonesian and Vietnamese card manufacturers with whom we have business and capital alliances.
- Further strengthen global manufacturing, sales and service systems related to Imaging Communications, and expand businesses connected to all aspects of imaging—in addition to ink ribbons and other print media. Also, respond rapidly to the growing worldwide trend toward digitization of commercial photo printing systems, and strive to maintain and expand our share of the market for related supplies.

3 Increase corporate value by means of all kinds of structural reforms

- Following on the integration of multiple marketing-related and information security-related business divisions in April 2016, create new value by facilitating advances in technology and expertise and synergistic combinations of each unit's strengths, and improve operational efficiency in order to boost profitability.
- Accelerate construction of new business models by integrating marketing and settlement services, and by strengthening collaboration between our information and communication technology (ICT) and business process outsourcing (BPO) businesses. We already began this process by consolidating planning and production functions that were formerly divided among units within Dai Nippon Printing Co., Ltd. and several Group companies, and by launching DNP Communication Design Co., Ltd. to handle marketing-related operations and DNP Digital Solutions Co., Ltd. to handle operations related to system development.
- Conduct a thorough review of the locations, scale, and other attributes of DNP Group book stores, and work to improve profitability by implementing a scrap-and-build strategy.

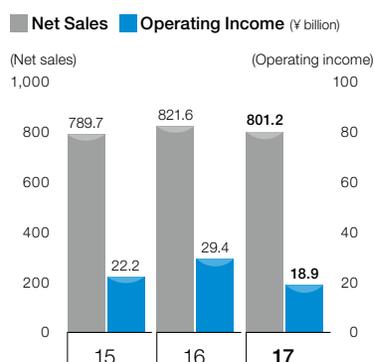
—	2	Synopsis of Performance
—	6	Message to Shareholders
—	14	Special Feature
—	30	DNP in Brief
→	40	Segment Information
—	54	How DNP Works to Achieve Sustainable Development
—	72	Financial Section
—	108	Appendix

Information Communication

Financial Results

Financial Highlights

	(¥ billion, %)		
	2015.3	2016.3	2017.3
Net sales	¥ 789.7	¥ 821.6	¥ 801.2
Operating income	22.2	29.4	18.9
Operating income margin	2.8%	3.6%	2.4%



[Net Sales]

Although Information Security and Marketing continued to perform solidly, sales from Education and Publications Distribution, Publishing & Media Services and Imaging Communication declined, resulting in a drop of 20.42 billion yen, or 2.5%, in net sales for the segment as a whole compared to the previous fiscal year.

[Operating Income]

Businesses that contributed to profits through increased sales included SIM cards for smartphones, smart cards for managing electronic money, credit cards, and information processing services (IPS) such as personal mailing services tailored to the needs of financial institutions. Nevertheless, the segment's bottom line was affected by decreased sales from Imaging Communications, due mainly to appreciation of the yen, in addition to increased outlays to fund retirement benefits and upfront investments related to new business start-ups. As a result, operating income decreased by 35.7%, or 10.48 billion yen, from the previous fiscal term. The segment's operating income margin decreased by 1.2 points to 2.4%, from 3.6% in the previous fiscal year.

Fiscal Term through March 2017: Business Environment and Summary of Financial Results

Publishing & Media Services; Education and Publications Distribution

In the fiscal year ended March 2017, Japanese publishing industry sales declined by 4.2% from a year earlier to 1,441.0 billion yen. Magazine sales fell 5.8% to 715.9 billion yen due to a decrease in the number of copies sold combined with an increase in the number of magazines that ceased publication, while book sales declined by 2.5% to 725.1 billion yen. In other words, magazines sales volume fell below the level of book sales for the first time in decades. At the same time, the domestic market for e-books expanded greatly in calendar 2016 relative to the previous year, growing by 27.1% to 190.9 billion yen (Source: Research Institute for Publications, the All Japan Magazine and Book Publishers' and Editors' Association).

DNP managed to secure roughly the same level of book sales as the previous year due to aggressive marketing activities, but magazine sales fell sharply, so overall sales from Publishing & Media Services declined compared to a year earlier.

In Education and Publications Distribution, we worked on expanding our "honto" hybrid bookstore network, which combines sales through bookstores, online mail order and e-book download services. In October 2016, we launched our "Book Tree" web service whereby authors, bookstore employees and others serve as "curators" who select books related to a theme of their choosing and display them to readers who have indicated an interest in that theme. In addition, our library support business picked up new client libraries and brought in more sales revenue than the previous year, but the Education and Publications Distribution unit posted lower sales overall compared to a year earlier due to the significant impact of the transfer in October 2016 of some shares in Bunkyo Group Holdings Co., Ltd. to Nippon Shuppan Hanbai Inc., and the change of Bunkyo's status to equity-method affiliate.

Going forward, DNP aims to revitalize the publishing market, further increase cooperation with publishers, and promote all kinds of publishing-related businesses including project planning, production, distribution and sales of various types of publications, development of content for overseas consumption, and handling of copyrights for secondary usage of content.

Marketing

According to a Japanese Ministry of Economy, Trade and Industry study, overall domestic corporate advertising expenses in the fiscal year ended March 2017 inched up by 2.1% over the previous year. Expenditures for direct mail and other printed advertisements declined, but spending on Internet advertising

increased, while spending on advertising in newspapers, magazines, television and radio was roughly unchanged from the previous year.

Despite a drop in flyer sales, DNP's Marketing-related sales increased over the previous year thanks to stronger sales of catalogs, pamphlets, and point-of-purchase (POP) and other promotional tools for retail and other distributors.

In the future, we will provide total marketing solutions that start with consulting and other services aimed at improving clients' business processes and marketing, including everything from planning and implementing sales campaigns to all types of studies and analyses and production and delivery of POP tools and leaflets, etc. Also, following the inauguration of DNP Communication Design Co., Ltd. in October 2016 and the launch of DNP Digital Solutions Co., Ltd. in April 2017, we intend to accelerate the construction of new business models by integrating marketing and settlement services and by strengthening collaboration in the information and communication technology (ICT) and business process outsourcing (BPO) fields.

Information Security

In Japan, major financial institutions and other large organizations are increasingly electing full outsourcing of the production of various notices to consumers. Issuance of SIM cards for telecommunications carriers, and of credit cards and other smart cards is also on the rise. Official "My Number" citizen ID smart cards became available in January 2016, and we expect issuance to gradually increase following the start of full-scale operation of the My Number portal site planned for October 2017.

In the fiscal year ended March 2017, DNP's sales of SIM cards for smartphones and smart cards for financial institutions and electronic money applications increased over the previous fiscal term. In IPS-related business, solid demand for services outsourced by financial institutions also helped overall Information Security sales exceed the previous year.

DNP's business processing infrastructure, including the DNP

Kashiwa Data Center and 13 domestic BPO bases, is protected by advanced information security measures. We will take full advantage of this environment and also strengthen collaboration with Nihon Unisys, Ltd. Through these measures, we intend to provide a variety of value-added services such as a digital marketing service that integrates international brand prepaid cards and settlement-linked marketing services, and BPO operations that efficiently execute business processes on behalf of client corporations.

Imaging Communication

DNP is developing businesses that target the overall imaging market—i.e. everything to do with images. In addition to responding to consumers' growing demand for products like photo prints and photo albums, we offer new services that make use of information and communication technologies to connect companies and consumers. For example, our "DNP Imaging Mall" is a cloud-based image sales solution that provides one-stop service starting with data storage and including website construction and image processing, printing and delivery.

Demand for photographic prints has been decreasing worldwide due to the proliferation of digital cameras, smartphones and photo sharing services. However, as photo print providers switch from the conventional silver halide photo development method, we see growing demand for the dye-sublimation thermal transfer printing systems (both equipment and supplies) in which DNP has a strong advantage. In Japan, our photo book business is also growing, as personalized photo books are becoming increasingly popular as gifts.

Sales of dye-sublimation thermal transfer printing media (color ink ribbons and receiver paper) in the fiscal year ended March 2017 declined from the previous year, largely due to the strong yen and the end of a round of printer replacements in the North American market. Sales of thermal mass transfer printing media, mainly used for printing expiration dates on food packages and bar codes on all types of packaging, also fell below the previous-year level, as did overall Imaging Communication sales.

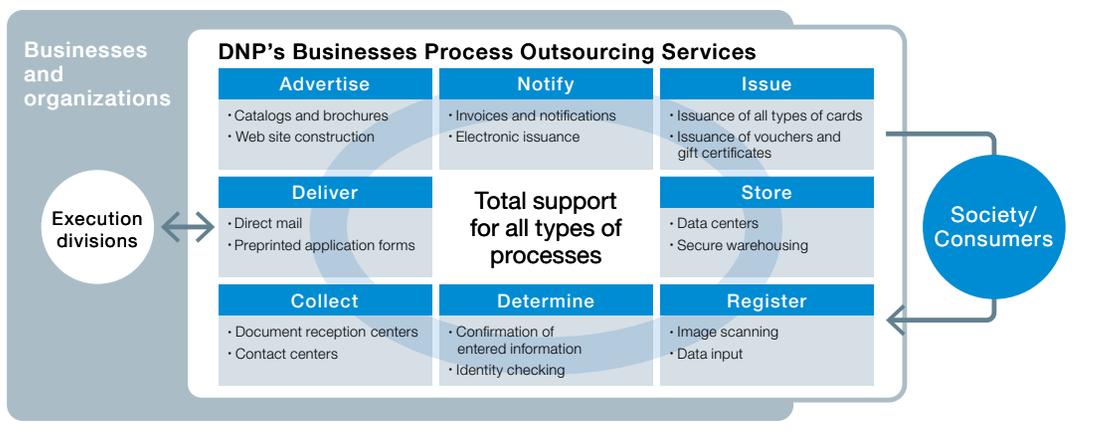
- 2 Synopsis of Performance
- 6 Message to Shareholders
- 14 Special Feature
- 30 DNP in Brief
- 40 **Segment Information**
- 54 How DNP Works to Achieve Sustainable Development
- 72 Financial Section
- 108 Appendix

TOPICS

We expanded our network of BPO centers and responded to developments in digital marketing.

In June 2017, in response to growing demand for business process outsourcing (BPO) services, DNP opened a new BPO center in

Tokyo's Shinjuku Ward, and another in Fukuoka City, Fukuoka Prefecture, giving DNP a total of 13 BPO operating locations in Japan. We intend to offer BPO services in a wider range of business fields, including digital marketing services that enhance the effectiveness of sales promotions by using the Internet to deliver optimally tailored information to consumers at optimal times.



Lifestyle & Industrial Supplies



Left: PET plastic bottles and preforms Right: Residential interior materials (wall covering)

Business Strategies

The Lifestyle and Industrial Supplies segment is composed of three business divisions: Packaging, Living Spaces, and Industrial Supplies. The segment provides many familiar products and services that play important roles in the daily lives of consumers. Our Packaging business creates many of the packages that consumers use in daily life, including packaging for foods, beverages and pharmaceutical products. We propose a wide variety of packaging solutions, beginning with helping clients to choose materials (paper or plastic, etc.), design package structure, select functionalities (e.g. long-term preservation of contents), and plan an exterior design, etc. Living Spaces handles a wide variety of products that shape the spaces in which people live, including residential interior and exterior materials such as floor and wall coverings, and interior products for automobiles and railway cars. These products offer a wide variety of special qualities such as a broad choice of artistic designs (including wood grain or stone-like textures), resistance to soiling and scratching, and the ability to reflect light efficiently. Products provided by Industrial Supplies include components used in lithium-ion rechargeable batteries and photovoltaic cells.

Products and services that are indispensable to comfortable living must also contribute to people's safety and sense of security. We develop products with consideration for "universal

design" and "inclusive design" principles so that our products will be easy for most consumers to use. In addition to focusing on energy conservation and adopting cleaner types of energy at our production sites, DNP strives to conserve biodiversity and minimize stress on the environment caused by the use and disposal of our products. Our strategy for the Lifestyle and Industrial Supplies segment is to anticipate the diverse needs of businesses and consumers in Japan and overseas and to create new value that enriches people's lives while fulfilling all of the above criteria.

DNP has identified four growth areas where we see 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 aim to speed up business creation by making full use of technologies and expertise cultivated within our segment and by promoting collaboration both within and outside of the DNP Group, including by actively seeking alliances with companies and research institutes that have relevant strengths.

Main Policies

1 Generate value by expanding business, primarily in growth areas

Combine technologies and expertise cultivated in each business field and create new value that will help solve social issues in the “four growth areas.” In particular, use DNP’s proprietary coating (precision coating) and converting (material processing) technologies to develop advanced products and services both in Japan and overseas.

Actively develop environmentally conscious products and services that minimize stress on the environment and help conserve biodiversity

- Expand our lineup of advanced packaging products such as transparent vapor deposition film (IB film), which is highly transparent and has excellent barrier properties, and our “Biomatech PET” series of plastic films that are made partially from plant-based materials in order to help reduce petroleum usage. IB film has excellent gas and moisture barrier properties, along with high transparency. It has been well-received by the market as a more environmentally conscious alternative to aluminum foil. Going forward, we will expand industrial applications in addition to food-related applications.
- Make use of DNP’s proprietary Electron Beam (EB) coating technology to promote the development of interior and exterior decorative materials and similar products with strong scratch and soil resistance and other outstanding characteristics including weatherability.
- Expand sales of new products with superior functions, like “DNP Lighting Film,” which brightens an entire room by effectively reflecting and diffusing light, thereby conserving electric power.
- Focus on developing back sheets, encapsulants, and other photovoltaic module components that help increase the conversion efficiency and reliability of photovoltaic cells.

Consider consumers’ point of view in the development of products and services that are comfortable and easy to use for many types of people

- In Packaging, study and analyze consumers’ awareness and usage habits related to food products, beverages and all types of household items. In Living Spaces, too, we will maintain a grasp of consumers’ changing values and preferences from DNP’s unique viewpoint, analyze latent needs and sensitivities, and reflect that understanding in a variety of businesses that seek to increase consumers’ comfort in everyday life, including measurement and assessment of living environments, living space designs including designs based on Kansei (sensitivity) engineering, and the development of easy-to-implement construction techniques.
- Promote “inclusive design” which, from an early stage of product development, respects people’s diversity and considers the needs of all types of people including the elderly, people with disabilities, and people who live in different countries or speak different languages, etc.
- Use advanced image processing and printing technologies to develop products with strong aesthetic appeal.

Provide new value for the automotive and other markets

- Bolster cooperation with partners in addition to developing products like decorative films for auto interiors, “DNP ultra weather-resistant hard-coat transfer film” used on resin glass that helps reduce auto body weight, and “DNP adhesive films” that form a strong bond between different materials such as metal and carbon fiber-reinforced plastic.
- Accelerate development of automotive products that combine decorative technologies and functional film technologies cultivated by DNP with the superior molding and resin forming technologies of DNP Tamura Plastic Co., Ltd. DNP Tamura is a leading provider of visors attached to the side windows of automobiles.
- Take advantage of DNP’s strength as the world’s number one supplier of pouches for lithium-ion batteries to expand applications beyond mobile devices to include, for example, electric vehicles and household-use storage batteries.
- Expand business through our partnership with SIG Combibloc Group AG, a major manufacturer of paper cartons for foods and beverages that produces some 10,000 varieties of products worldwide. The company makes unusual containers rarely found in Japan—such as a carton that has a re-sealable spout and can be filled with solid foods which can help Japanese companies make their products stand out on store shelves.

2 Provide value to the global market

- Use our Packaging division’s presence in Indonesia and Vietnam, where it is already working to enhance production systems in order to expand market share in Southeast Asia, as a base from which to increase sales in neighboring countries.
- In Living Spaces, make full use of our global business network to increase our market share in Europe, the U.S., and emerging markets. In addition, boost overseas sales of Arttec decorative aluminum plate for interior and exterior use, as well as automobile interior materials.
- Work steadily to promote global expansion in sales of pouches for lithium-ion rechargeable batteries in order to expand our share of this market.

3 Increase corporate value by means of all kinds of structural reforms

- Review the DNP Group’s production systems from the standpoint of overall optimization, and promote improvements in production efficiency.
- Further improve profitability and production efficiency, especially in Packaging, now that we are making progress toward establishing a system for supervising domestic sales and manufacturing functions on a nationwide scale and reorganizing paper package manufacturing bases.
- Concerning business outside Japan, respond more flexibly to fluctuations in exchange rates and raw material supplies, and use hedging and other risk management tools to minimize any adverse effects of such fluctuations on our bottom line.

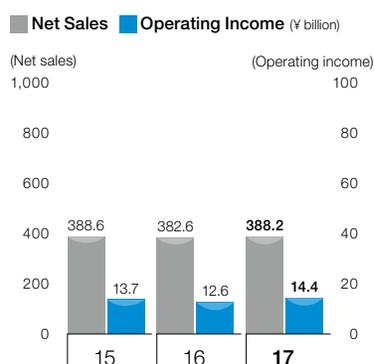
2	Synopsis of Performance
6	Message to Shareholders
14	Special Feature
30	DNP in Brief
→ 40	Segment Information
54	How DNP Works to Achieve Sustainable Development
72	Financial Section
108	Appendix

Lifestyle & Industrial Supplies

Financial Results

Financial Highlights

	(¥ billion, %)		
	2015.3	2016.3	2017.3
Net sales	¥ 388.6	¥ 382.6	¥ 388.2
Operating income	13.7	12.6	14.4
Operating income margin	3.5%	3.3%	3.7%



[Net Sales]

Our Packaging business enjoyed strong sales of paper cups, mainly for use as food containers, and a large increase in sales of aseptic systems for filling polyethylene terephthalate (PET) plastic bottles. Living Spaces, which focused on expanding sales of automotive-related products and environmentally conscious products such as flooring made with electron beam (EB) coating technology, achieved a similar level of sales as the previous year. In Industrial Supplies, sales of components for photovoltaic cells were weak both in Japan and overseas.

Overall segment sales totaled 388.2 billion yen, an increase of 1.4% over the previous fiscal year.

[Operating Income]

Thanks to factors including decreased raw material and energy costs and increased revenue from Packaging, the segment's operating income grew by 14.6% from a year earlier to 14.43 billion. The operating income margin rose 0.4 percentage point to 3.7%, from 3.3% in the previous term.

Fiscal Term through March 2017: Business Environment and Summary of Financial Results

| Packaging

Production value of domestic packaging printing in the year ended March 2017 increased by 2% over the previous year (according to Japan's Ministry of Economy, Trade and Industry), but market conditions remained very tough due to such factors as fluctuations in sales of seasonal products stemming from unseasonable weather, and escalating price competition. Despite this environment, DNP's Packaging business exceeded the previous year's sales thanks to a big increase in sales of aseptic PET plastic bottle filling systems and strong sales of paper cups—especially those used as food containers.

DNP aims to expand its share of the global packaging market, particularly in Southeast Asia. We are using our factories in Indonesia and Vietnam, along with other operating locations in the region in our effort to provide high-added value products and services for Japanese and international companies doing business overseas. In order to boost our competitive position, we are working to improve production efficiency by implementing restructuring and overall optimization of our manufacturing bases throughout Japan.

In product development, we apply universal design principles so our products will be easy for all types of people to use. We are also promoting the development of environmentally conscious products and services, and packaging products related to the fields of medical care, healthcare and industrial supplies.

| Living Spaces

Domestic housing starts in the fiscal term ended March 2017 increased by 5.8% compared with the previous term according to Japan's Ministry of Land, Infrastructure, Transport and Tourism. However, construction starts of rental units (which use less decorative material on average) increased by 11.4%, while starts of occupant-owned condominiums (which use more decorative material) decreased by 5.1%, so domestic demand for decorative materials rose only slightly. Among the environmentally conscious products that DNP makes using our proprietary electron beam (EB) coating technology, our EB floor coverings have been praised particularly highly due to their high scratch resistance, and have sold well. As a result, overall sales from Living Spaces increased slightly.

In the fiscal year through March 2017, we focused on developing and marketing more environmentally conscious products, for example by enhancing the energy efficiency of various products, and by working to expand the market share of products made with EB coating technology. We also stepped up

efforts to market our highly aesthetic Arttec decorative aluminum plates for interior and exterior use, automotive interior materials, and other decorative materials to manufacturers outside of Japan. In addition to supplying automobile and railway car interior and exterior products with excellent durability and functionality, we worked to develop new automotive-related products by combining electronics-related technologies with resin forming, functional film, and other technologies.

Industrial Supplies

Domestic shipments of photovoltaic cells in the fiscal term through March 2017 (in terms of power generation capacity) decreased by 11% from a year earlier to 6,341 megawatts, according to the Japan Photovoltaic Energy Association. The drop was part of an ongoing decline in domestic demand for photovoltaic cells, especially for residential use, as revisions to Japan's feed-in tariff (FIT) system, which sets purchase prices for power generated from renewable sources, have resulted in lower prices for solar power. Sales of DNP's encapsulants, back sheets

and other photovoltaic cell components declined year on year due to the slump in the Japanese market, lower module prices overseas, and other factors.

DNP is one of the world's top suppliers of pouches for lithium-ion rechargeable batteries, which are lighter in weight and easier to process than conventional alternatives. In the fiscal year ended March 2017, the number of pouches used in mobile information terminals increased, but unit prices declined. These trends, combined with a slight increase in pouches used for automotive applications, resulted in a slight decrease in DNP's overall battery pouch sales.

In the fiscal term ended March 2017, in addition to working to make more advanced components for photovoltaic cells and lithium-ion rechargeable batteries, DNP applied its proprietary converting (materials processing) technologies to efforts aimed at developing highly reliable new products. We are also working on expanding our advanced materials business, including high-added value barrier films for industrial use.

- 2 Synopsis of Performance
- 6 Message to Shareholders
- 14 Special Feature
- 30 DNP in Brief
- 40 **Segment Information**
- 54 How DNP Works to Achieve Sustainable Development
- 72 Financial Section
- 108 Appendix

TOPICS

A new challenge for Packaging: Creating the PET plastic bottle of the future

In 2016, some 2 billion polyethylene terephthalate (PET) plastic bottles containing beverages were produced in Japan, and about one third of them were produced using DNP's inline aseptic filling systems.

DNP began selling inline aseptic filling systems using PET bottle preforms in 1997 by emphasizing their environmental appeal. Because the test tube-shaped preforms are only formed into bottles after arriving at the beverage plant, their transport to the plant is about seven times more efficient than the transport of fully formed, empty PET bottles, making it possible to reduce fuel expenses and carbon dioxide emissions related to bottle transport. Also, because the bottles are filled in a sterile environment, they can be made thinner than bottles used in conventional systems where prolonged sterilization at high temperatures was necessary. In 2015, we introduced a 14.6-gram preform bottle for tea-based beverages

and sports drinks. At the time, it was the lightest bottle in its class and has since been adopted to hold many types of soft drinks.

There is a trend toward replacing glass bottles with PET bottles in consideration of the plastic bottles' lighter weight. However, because coloration of PET plastic bottles is prohibited in Japan in order to facilitate recycling, it is extremely difficult to use them for beer or other beverages that must be protected from the effects of light. To address this problem, DNP developed the "DNP Functional Film Complex PET plastic bottle" by covering a conventional preform with special colored film all the way to the bottom and forming the bottle together with the film. In addition to blocking out light, the film also shuts out oxygen and gives the bottle a more pleasing appearance, making this next-generation plastic bottle a winner in terms of both form and function. Because the bottle is still transparent after the film is removed, it can be easily recycled.

DNP will further enhance its market presence by combining original technologies that it has cultivated throughout its history with the advantages of lightweight, breakage-resistant plastic bottles.

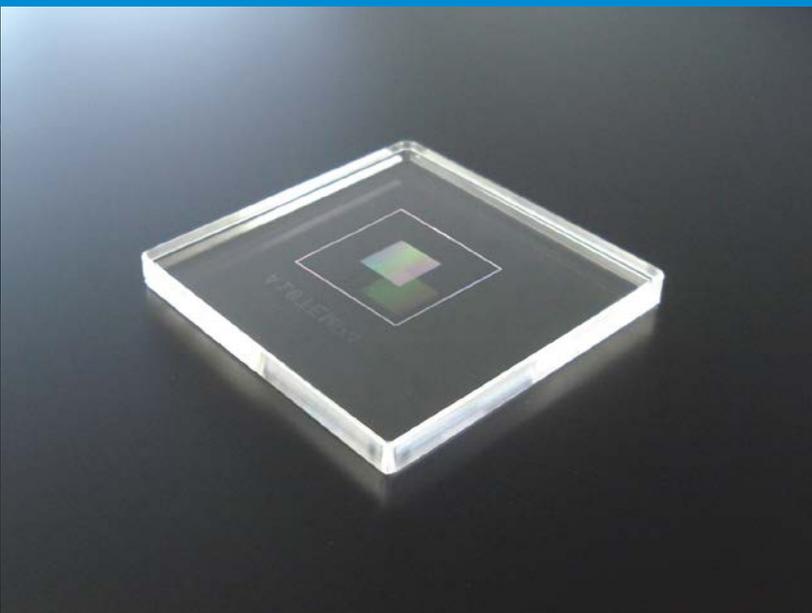


Aseptic filling system for PET plastic bottles



Sample Complex Bottles

Electronics



Left: Inspecting optical film Right: Master template for nanoimprinting

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. We have reached the point where a huge amount of information circulates in societies where each consumer has a personal information terminal, allowing people to exchange information without being limited by time or space. As a result, demand for easy-to-use electronic devices that make use of cutting-edge technologies is becoming increasingly sophisticated and diverse.

DNP's Electronics segment includes Display Components and Electronic Devices, primarily aimed at 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. In addition, we strive to provide completely new value in fields related to automobiles, smart homes, medicine and health care, the environment and energy, and other new fields by combining multiple technologies such as ultrafine etching and world-class, high-definition patterning technologies.

The segment's market is broadly international and characterized by intense competition over technological development. Nowadays it has become extremely difficult to secure stable profits unless we keep research, development, and capital spending up to date. That is why we keep our eye on next-generation trends in electronic products as we work to develop new products with high added value and exceptional functionality. At the same time, we seek opportunities to speed up business development by actively collaborating with corporate clients and/or companies that have specialized strengths.

In addition to refining and multiplying our existing technologies, we will continue to consider technology licensing-based alliances and to actively develop royalty businesses and similar types of partnerships.

In order to improve profitability, we will continue to minimize costs and improve efficiency, for example by selecting and concentrating on the most promising products in our lineup as we pursue global development that makes the best use of our production bases in Japan and overseas.

Main Policies

1 | Generate value by expanding business, primarily in growth areas

Generate new value that leads to the resolution of social problems by deepening cooperation among business units with respect to our “four growth areas.” Amid developments in the “Internet of things” (IoT) and artificial intelligence, we note particularly strong increases in demand for products such as more advanced, easier-to-use information devices and sensors, and for higher definition, clearer displays. In response, we intend to collaborate with DNP’s Information Communication and Lifestyle and Industrial Supplies segments and to refine and multiply the technologies and expertise that we have cultivated in our own businesses (Display Components, Optical Films and Electronic Devices) in order to continue building new products, services, and business models. As we do so, we plan to actively anticipate consumers’ needs and market trends, to support higher-definition displays that offer a wide range of colors, and to keep pace with diverse and sometimes conflicting demands as various electronic devices become larger, smaller, thinner, lighter, more energy-efficient and provide more advanced functionalities.

Develop various products for use in OLED displays

- OLED displays are attracting attention as next-generation displays with the potential to be adapted to curved surfaces. Researchers are also working on related innovations, such as foldable products. We will work to maintain and expand our share of the OLED display market by boosting production capacity for metal masks used in EL display production, by developing products that support higher resolutions, and by enhancing our production systems so we can offer a more stable supply. In addition to metal masks, we will continue working to develop other components used in OLED display production, such as retardation film and other optical films.

Pioneer new fields by refining and multiplying core technologies

- Regarding liquid crystal color filters, we will focus on areas where demand is expected to grow, such as automotive and medical applications, while we respond to demand for even higher definition small- and medium-sized products.
- We will promote development of automotive-oriented products, such as viewing angle control film that prevents light emitted from car navigation or other in-vehicle displays from being reflected onto the windshield.
- Concerning electronic devices, we will accelerate development of next-generation semiconductor photomasks, provide global support for each client company’s production systems, and endeavor to standardize manufacturing processes. In addition, we aim to expand not only by selling more individual products, such as lead frames and hard disk drive components, but also by increasing solutions-oriented business based on design technologies.

Refine and apply nanoimprinting technologies

- We will focus on manufacturing master templates used in nanoimprint* lithography, a technology for making products that are expected to be in greatly increasing demand, such as 3D NAND flash memories. We will also accelerate

development of “nanoimprinting solutions” for businesses that require microfabrication of non-semiconductor products. In addition to focusing on business development related to sensing, a field that is indispensable to furthering IoT and automation, we will work to develop other new products not related to semiconductors, such as materials used in various types of electronic products including light-emitting diodes, OLED displays and photovoltaic cells, as well as materials related to life science.

2 | Provide value to the global market

- DNP’s Electronics segment serves a broadly international market centered in China and including East Asia, Europe, and North America. As basic technologies rapidly transition from liquid crystal to OLED, we are proceeding carefully with technological development and capital spending while closely watching developments overseas.
- Regarding liquid crystal display-related products, since manufacturers in China and other parts of Asia are increasingly inclined to do more production in-house, we intend to increase collaboration not only by supplying materials and components but also by licensing technology related to liquid crystal color filters. In Electronic Devices, we will develop more global business by cooperating with other companies to establish shared production bases aimed at meeting Chinese demand, and by making good use of European production bases.

3 | Increase corporate value by means of all kinds of structural reforms

Capital investment aimed at production innovation

- Now that advances in the miniaturization of semiconductor products have made the ability to draw circuit patterns with line widths of less than 10nm an essential requirement, we plan to achieve a high level of productivity and enhance our next-generation semiconductor photomask production systems by introducing electron multi-beam mask writers that greatly reduce drawing time.

Promote structural reforms aimed at expanding business

- The electronics business environment changes rapidly. We aim to concentrate allocation of management resources and sharpen our focus on the development of products, services, and systems that can be expected to continue to grow. In addition, we will reconsider our traditional investment recovery-oriented business model according to which we made large-scale capital investments followed by supplying a large number of components. Going forward, we aim to deepen collaboration with customers, suppliers and partners and concentrate on developing process solution services that address overall supply chains, including the supply of materials, designs, and equipment.

* Nanoimprinting: microfabrication technology used for reliably transferring patterns with line widths measured in microns (μm = 1 millionth of a meter) or nanometers (nm = 1 billionth of a meter) by pressing templates onto resin-coated substrates or other surfaces

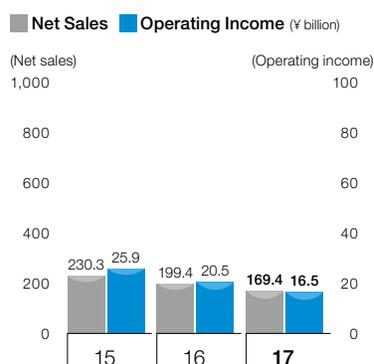
2	Synopsis of Performance
6	Message to Shareholders
14	Special Feature
30	DNP in Brief
→ 40	Segment Information
54	How DNP Works to Achieve Sustainable Development
72	Financial Section
108	Appendix

Electronics

Financial Results

Financial Highlights

	(¥ billion, %)		
	2015.3	2016.3	2017.3
Net sales	¥ 230.3	¥ 199.4	¥ 169.4
Operating income	25.9	20.5	16.5
Operating income margin	11.2%	10.3%	9.7%



[Net Sales]

DNP enjoyed strong sales of metal masks used in the manufacture of OLED displays, which are expected to outperform liquid crystal displays (LCDs) in the future. However, sales of color filters used in LCDs declined: both small- and medium-sized products used in smartphones and tablet PCs, and large products used in televisions. Sales of film for polarizing plates, the mainstay of our optical film business, also declined, and sales of photomasks used for making semiconductors were sluggish both overseas and in Japan.

Overall, Electronics segment sales declined 15.0% from the previous year to 169.41 billion yen.

[Operating Income]

Depreciation and amortization expenses declined year on year by 2.92 billion yen, mainly due to decreased large-scale capital spending and sales of surplus equipment. However, operating income decreased 19.6% from a year earlier to 16.48 billion yen due partly to smaller net sales and lower unit prices resulting from increased competition. The segment's operating income margin decreased by 0.6 point, from 10.3% a year earlier to 9.7%.

Fiscal Term through March 2017: Business Environment and Summary of Financial Results

| Display Components

In calendar 2016, despite an increase in demand for high-definition liquid crystal display (LCD) televisions in emerging markets—primarily in Asia—overall worldwide shipments of flat-panel displays were little changed from the previous year, at about 240 million units. Shipments of tablet PCs were also little changed from 2015, at around 200 million units, while shipments of personal computers fell about 6% year on year to 260 million units. More widespread use of smartphones led to an increased sense of market saturation: roughly 1.47 billion units were shipped worldwide, which indicates that the pace of increase is slowing. Amid these market trends, major LCD manufacturers are hard pressed to turn profits and some have announced production line closures or even withdrawal from LCD television production. Not only in Japan, but also in China, South Korea, and other Asian countries, significant changes in manufacturing systems are occurring. At the same time, the industry is moving toward using OLED displays in smartphones, and it has become difficult to predict demand for various types of optical films and other components related to LCD and OLED displays.

Given this situation, DNP focused LC color filter production on its 8th-generation manufacturing lines, which make large-scale panels used in 4K ultra HD televisions, but sales of large filters fell below previous-year levels along with medium-sized and small products. Regarding optical films, sales of our mainstay anti-reflection films used for televisions and smartphones declined relative to a year earlier. Meanwhile, spurred by growing demand for OLED 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 which make use of DNP's proprietary advanced photolithography and etching technologies.

By the end of fiscal 2017 we plan to transfer color filter manufacturing equipment from our Mihara Plant in Hiroshima Prefecture to a manufacturer in China that makes glass for LCDs. Going forward, we will continue to benefit from business opportunities presented by growth in the Chinese LCD market by providing technical and other types of support.

We will also focus on developing new products and work to expand such businesses as LCD color filters that combine high brightness with energy efficiency, components for high-definition, high-end smartphones, and various products used in in-vehicle displays. Regarding OLED displays, we intend to maintain and expand our dominant share of this market by boosting production capacity for metal masks in response to growing demand.

Electronic Devices

The global semiconductor market in calendar 2016 grew by 1.1% over the previous year, to a record high of 338.9 billion dollars. Demand increased mainly in the U.S. and China, in various fields including smartphones and other telecommunications equipment, digital appliances, and automobiles.

In the fiscal year through March 2017, DNP's Electronic Devices business was affected by an increasing tendency among manufacturers—mainly overseas semiconductor manufacturers—to produce photomasks in-house. In Japan, demand for photomasks used for flash memories fell short of initial forecasts, and we were not able to achieve full-scale mass production.

Going forward, we expect to see further progress in the “Internet of things” (IoT), which will link many physical objects via the Internet. Automobiles are turning into information terminals that can receive all types of services, and automated driving

technology is advancing, opening up new pathways for the expansion of DNP's advanced photomasks and various electronic device businesses. We will work on technological development with an emphasis on providing state-of-the-art photomasks for flash memories and other applications. Concerning the use of nanoimprinting technologies in ultrafine processing, we are especially keen 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 and other products in the field of life science.

Regarding lead frames, as trends in the IoT and in-vehicle fields affect the semiconductor package market, we will focus especially on boosting our share of compact quad-flat no-leads packages (QFNs) that meet the market's demands for increasing miniaturization and density and decreasing thickness.

—	2	Synopsis of Performance
—	6	Message to Shareholders
—	14	Special Feature
—	30	DNP in Brief
→	40	Segment Information
—	54	How DNP Works to Achieve Sustainable Development
—	72	Financial Section
—	108	Appendix

TOPICS

Applying nanoimprinting technology: Startup of volume production of optical elements

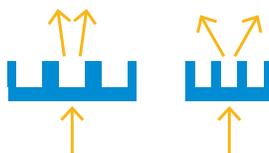
DNP plans to start applying nanoimprinting* technology to the mass production of diffractive optical elements (DOEs) for compact light sources used in such applications as vein authentication systems in tablet PCs.

Demand for more sophisticated sensing and information security has been increasing in recent years in line with growing use of network services and the “Internet of things (IoT).” Infrared radiation—which has longer wavelengths than light that is visible to the human eye—has become particularly widely used in various sensing and biometric authentication applications. Radiating infrared light in specific shapes increases the efficiency and performance of sensors' readings, etc., but in order to design and regulate the light's direction, intensity and optical illumination patterns, it is necessary to narrow the pitch of the optical element's concavo-convex pattern and to fabricate the staircase patterns. It is very difficult to create the required deep, thin and staircase shapes, so it is necessary to use advanced nanoimprinting technologies for template processing and mass production. In order to meet these challenges and enable mass production of optical elements with the desired properties, DNP employed proprietary nanoimprinting technologies that we developed ourselves.

DNP entered the semiconductor photomask business in the latter half of the 1950s. By applying high-precision patterning technologies that we cultivated through that business, we began research and development of nanoimprinting in the early 2000s. After that, we succeeded in developing and owning relevant basic technologies, to the point that we can now optimally design the full gamut of manufacturing processes including mold, nanoimprinting, and material design. In addition, we own the optical design technologies necessary for creating the various optical illumination patterns that client companies request each time we develop a new optical element. By enhancing and synergizing these technologies, DNP enables the design and manufacture of optical elements compatible with various light sources including lasers and LEDs. By starting optical element mass production that uses nanoimprinting technology, we will be responding to a number of needs including demand for miniaturization as well as for improving the performance and efficiency of all types of optical sensing devices and lighting equipment.

* Nanoimprinting: a microfabrication technology for reliably transferring ultrafine, concavo-convex patterns with line widths measured in units ranging from nanometers (nm, one billionth of a meter) to micrometers (μm, one millionth of a meter) from a template to a resin-coated or other substrate by pressing the template against the substrate as if pressing a rubber stamp

Diffractive Optical Elements (DOEs)



Light bends in different ways depending on the light's wavelength and the DOE's pattern pitch

Vein Sensor Light Source

