

# DNP's Businesses

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# DNP at a Glance

## Profile

### A comprehensive printing company that creates “Tomorrow’s Basic” based on strengths resulting from the fusion of printing and information technologies

DNP is one of the largest comprehensive printing companies in the world. We provide a variety of products and services in a wide range of business fields to consumers and some 30,000 corporate clients in Japan and around the globe. DNP’s main strengths are the printing and information technologies that it has cultivated since its founding in 1876. The Company has branched out from publishing and commercial printing into diverse fields including packaging, decorative materials, display components, and electronic devices. DNP has even grown to be the world’s largest supplier of many products in these areas, and we continue to take on the challenge of expanding into new business fields, such as environment, energy, and life sciences.

From early in its development, DNP set about boosting the efficiency of the overall Group’s management through measures including overall optimization, boosting profitability, and making effective use of management resources. We work hard to manage the company efficiently, for example by concentrating functions such as planning, sales, and research and development in our head office while positioning manufacturing divisions and specific technology development divisions within Group companies.

As of March 31, 2014, the DNP Group employed about 39,524 people. The Group has 46 sales bases and 58 production plants in Japan, 24 sales offices in 15 countries and a region and 13 overseas production plants in 10 countries and a region. Overseas sales contributed 14.9% of the Group’s overall net sales in the fiscal year ended March 2014.

## Business Portfolio

### A well-balanced business portfolio from the standpoints of stability, profitability, growth potential and risk

DNP has two main businesses: Printing, which contributes about 96% of consolidated net sales, and Beverages, which generates about 4% of the Group’s sales through Hokkaido Coca-Cola Bottling Co., Ltd. Armed with this business portfolio, DNP aims to expand its overall business and increase its corporate value by striving to solve problems for corporate clients and consumers.

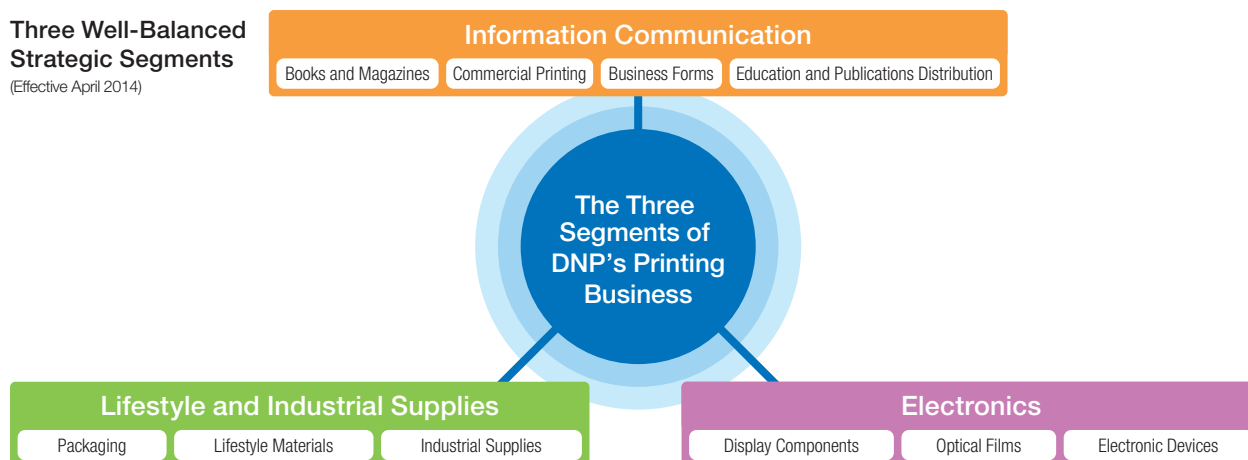
Printing consists of an assortment of businesses through which DNP applies and develops printing and information technologies in order to solve problems for consumers, and for client companies who operate in all types of business fields and in diverse formats. We divide our Printing business into three segments: (1) Information Communication, which includes the books and magazines and commercial printing businesses where DNP got its start, (2) Lifestyle and Industrial Supplies, which supplies a wide range of products including packaging products, decorative materials, optical films\* and ink ribbons, and energy-related components, and (3) Electronics, which supplies display components and electronic devices, among other products. These three segments cooperate with each other and form a business portfolio that is well-balanced from the standpoints of stability, profitability, growth potential, and risk.

Our Beverages business takes advantage of the Coca-Cola brand strength while also developing original DNP products. We are working on bolstering our beverages business base, for example by promoting production and procurement in liaison with bottlers in other parts of Japan.

\*Effective April 2014, Optical Films operations were transferred to the Electronics segment.

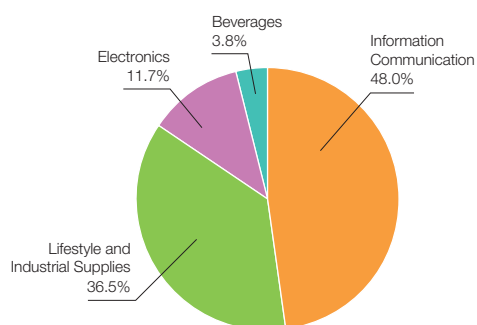
### Three Well-Balanced Strategic Segments

(Effective April 2014)

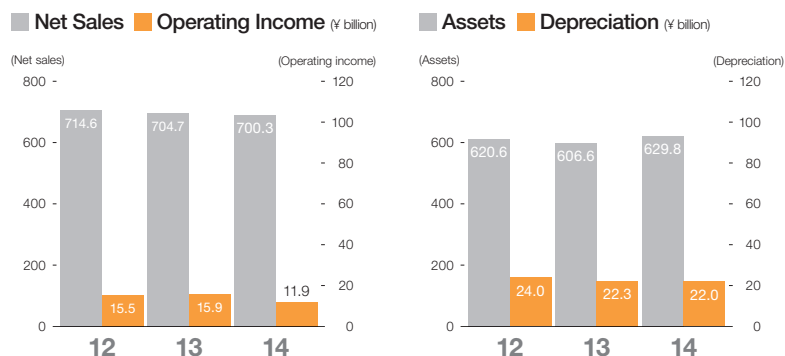


## Net Sales

by Segment (Year ended March 31, 2014)

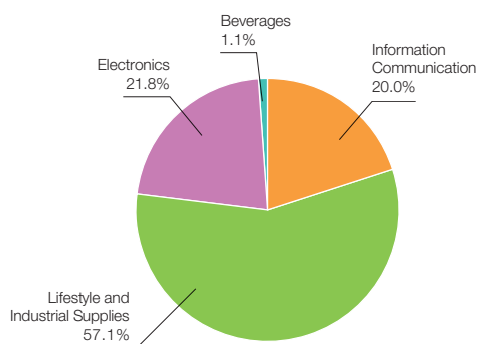


## Information Communication



## Operating Income

by Segment (Year ended March 31, 2014)



## Lifestyle and Industrial Supplies



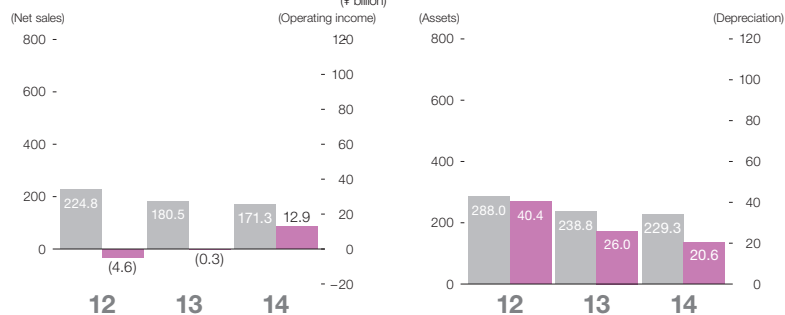
## Beverages

Net Sales Operating Income (¥ billion)



## Electronics

Net Sales Operating Income (Loss) (¥ billion) Assets Depreciation (¥ billion)





# Our Products and Services

## Information Communication

### • Books and Magazines

[1] Books and magazines [2] Dictionaries [3] E-books  
[4] Hybrid bookstore network "honto" loyalty point card (left);  
"My Bookshelf" display (right)

### • Commercial Printing

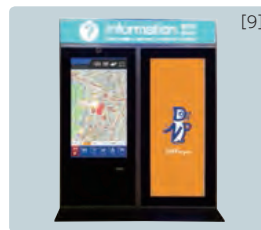
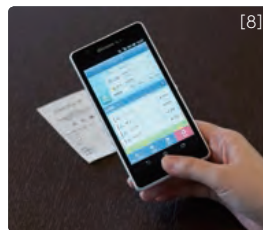
[5] Catalogs, calendars [6] Augmented reality (AR)  
[7] Orikomi! e-flyer service  
[8] Screen shot of "Receipt!" household budget application  
[9] "Will Smart" touch-screen digital signage  
[10] Personalized mail

### • Business Forms

[11] Smart cards [12] SIM card  
[13] Lippmann hologram [14] IC tags

### • Education and Publications Distribution

[15] Maruzen & Junkudo Bookstore in Shibuya (Tokyo)



## Lifestyle and Industrial Supplies

### • Packaging

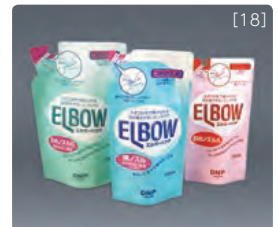
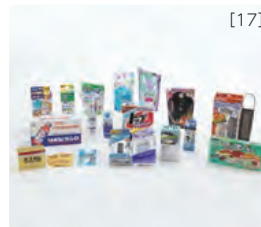
[16] Packaging for foods [17] Packaging for toiletries and  
pharmaceutical products [18] Universal design products  
[19] Packages made of IB film [20] PET plastic bottles and preform  
[21] Aseptic filling systems for PET plastic bottle

### • Lifestyle Materials

[22] Residential interior materials [23] Exterior materials for buildings  
[24] Automotive interior materials [25] Interior coverings for railway  
cars (Tohoku Shinkansen Hayabusa Reserved "Green" Car)

### • Industrial Supplies

[26] Bus line sheet used in photovoltaic cells  
[27] Soft pack for lithium-ion battery  
[28] Dye-sublimation thermal transfer printing media  
[29] Digital photo printer [30] Barcode labels made using thermal  
resin-type transfer printing media  
[31] Self print terminal "PrintRush"



## Electronics

### • Display Components

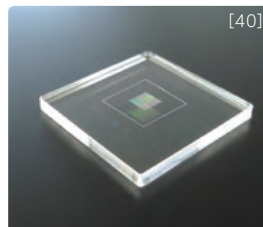
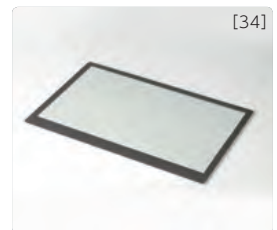
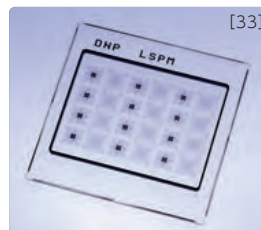
[32] Color filter for liquid crystal display  
[33] Large-scale photomasks [34] Touch panel sensors

### • Optical Films\*

[35] Optical films used for displays  
[36] Projection screen [37] Transparent screen  
[38] Moth-eye® anti-reflection film (left side of the glass)

### • Electronic Devices

[39] Semiconductor photomask  
[40] Master template for nano-imprinting  
[41] Hard disk drive suspension  
[42] Lead frame for compact semiconductor package  
[43] Metal substrate for LED light  
[44] Recorder for security camera  
[45] NFC (near field communication) module  
[46] Electronic paper display system  
[47] MEMS (micro electro mechanical systems) products



Note: Numbers in square brackets correspond to photographs on pp. 26-27. \* Effective April 2014, Optical Films was transferred into the Electronics segment.



# Evolution of DNP's Businesses

1876 <Founding>

1950

1960

1970

1980

## Printing

## Comprehensive Printing

## Information Processing

▶ 1876 Founding of Shueisha, DNP's predecessor; start of letterpress printing

▶ 1935 Merger of Shueisha and Nisshin Printing to form Dai Nippon Printing  
▶ 1949 Listed shares on Tokyo Stock Exchange

▶ 1963 Establishment of Hokkaido Coca-Cola Bottling Co., Ltd.

▶ 1951 Began promoting "expansion printing"

▶ 1944 Launch of DNP's Technical Research Laboratory (now called the Research and Development Center)

## Information Communication

### Books and Magazines

▶ 1877 Produced first Western-style book in Japan, revised edition of "Self-Help" by Samuel Smiles

▶ 1912 Completion of DNP's original Shueitai font

▶ 1925 Received order to print 740,000 copies of the inaugural edition of "King" magazine

▶ 1882 Began sales of printing types

▶ 1956 Printed the inaugural edition of "Shukan Shincho," the first weekly magazine issued by a publishing company

▶ 1972 Began development of Computer Typesetting System (CTS)

▶ 1975 Began digital processing of image data

### Commercial Printing

▶ 1885 Start of lithographic printing

▶ 1971 Development of scented printing

▶ 1981 Establishment of new video printing system technology

### Business Forms

▶ 1898 Began printing of securities

▶ 1945 Began printing new Bank of Japan notes after being designated to do so by Japanese Ministry of Finance

▶ 1954 Start of carbon-backed ledger printing

▶ 1965 Began mass production of OCR ledgers

▶ 1973-74 Full-scale production of magnetic plastic cards and magnetic passbooks

▶ 1983 Development of smart cards

## Lifestyle and Industrial Supplies

### Packaging

▶ 1951 Full-scale entry into paper container business  
▶ 1951 Began printing on vinyl and other non-paper materials

▶ 1961 Started production of blow-molded bottles

▶ 1962 Began producing paper cups

▶ 1975 Began producing retort pouches

▶ 1976 Development of aseptic filling system

▶ 1983 Development of technology for drawing on molded plastic goods

▶ 1969 Began producing laminated tubes

▶ 1984 Began producing PET plastic beverage bottles

### Lifestyle Materials

▶ 1951 Began developing decorative paper for melamine resin plate

▶ 1961 Began printing directly onto steel plates

▶ 1974 Introduction of Curfit technology for printing on curved surfaces

▶ 1977 Development of stainless decorative sheet

### Industrial Supplies

▶ 1984-85 Development of thermal resin-type and dye-sublimation thermal transfer printing media

## Electronics

### Display Components

▶ 1958 Successful prototyping of shadowmasks

▶ 1973 Development of color filters

▶ 1978 Development of new type of shadowmasks (flat masks)

### Electronic Devices

▶ 1959 Successful prototyping of photomasks

▶ 1964 Began lead frame production

### Optical Films

▶ 1983 Started producing projection screens



1990

2000

2010

2014

## Information Communication

## P&amp;I Solutions

►1987 Began shifting focus from "expansion printing" to "comprehensive information processing"

►2001 Announcement of DNP Group Vision for the 21st Century (125th anniversary of DNP's founding)

## "Today's Innovation is Tomorrow's Basic"

— Growth Strategies —

►1985 Development of world's first electronic dictionary on CD-ROM

►1992 Development of Shueitai True Type font

►1997 Start of online publishing business

►2008-10 Alliances with Maruzen Co., Ltd. Junkudo Co., Ltd. and Bunkyo Group Holdings Co., Ltd., etc.  
►2010 Startup of "honto" e-book sales service

►1989 Construction of global network system

►1995 Began Internet service "Media Galaxy"

►1997 Began e-commerce service

►2001 Began Orikomio! e-flyer service

►2008 Launch of digital signage project

►1993 Production of contactless smart cards

►1999 Launch of IC tag project

►2004 Began Card Data Management Service (CDMS)

►2005 Establishment of "SSFC" office security consortium

►1992 Development of preform method for PET plastic bottles

►1998 Development of transparent "innovative barrier film (IB Film)"

►2007 Development of packaging for Japanese-style space food

►1996 Began producing sheet with EB coating

►1999 Commercialization of "soft packs" for lithium-ion batteries

►2003 Development of photovoltaic module components

►2005 Began development of "PrintRush" self-service printing system

►2005 Development of fuel cell components

►2007 Development of printed organic photovoltaic cells

►1985 Development of LCD color filter production technology

►2001 Development of flexible organic EL displays

►2003 Development of full-color organic EL panels

►2006 Mass production of color filters using inkjet method

►1995 Launched multilayer wiring formation technology

►1999 Entered semiconductor package substrate field

►2001 Began MEMS (micro electro mechanical systems) processing under contract

►2002 Completed production line for "B²it" high-density build-up boards

►1996 Establishment of anti-glare film technology for LCDs

►2004 Development of "JETBLACK" front projection screens

### New Businesses

#### Life Science (Regenerative Medicine, etc.)

►2004 Successful formation of capillary patterns

►2008 Development of cell pattern culture substrates

►2008 Development of cell sheet culture film

- Hybrid publishing solutions
- Hybrid bookstore network "honto"
- Businesses that make use of big data
- Cross media communications business
- Promotion of BPO business
- Expansion of security solutions

- Expand eco-friendly products
- Develop new products using materials with more advanced functionality
- Expand safe, reliable packaging, a variety of living space solutions, and industrial materials businesses worldwide

- Display products: shift emphasis to growth areas and expand new product lineup
- Electronic devices: develop cutting-edge technologies and expand overseas business
- Optical films: used basic technologies to expand into new markets

Effective April 2014, Optical Films was transferred into the Electronics segment.

- Promote research and development aimed at business creation



# Major Events of this Fiscal Year

## 2013

### Apr.

#### ○ Opening of Osaka cafe aimed at increasing communication with consumers

DNP teamed up with Pronto Corporation and Knowledge Capital, a facility in Osaka that supports collaboration between corporations, universities, research institutes and other entities, to open “the Lab. CAFE Lab.” The new “communication cafe” is located within Knowledge Capital. Its shelves hold books that were carefully selected by the cafe staff, and customers are free to read e-books using the tablet PCs found on each table. DNP will make use of the cafe in future business development, for example by organizing workshops with consumer participation.



The Lab. CAFE Lab.

### May

#### ○ Startup of packaging plant in Vietnam (details on P 16)

#### ○ Expansion of production equipment at Pittsburgh plant, which makes thermal resin-type transfer printing media for printing barcodes (details on P 17)

#### ○ Tie-up with Will Smart on digital signage business

DNP and Will Smart Co., Ltd., a subsidiary of Zenrin DataCom Co., Ltd., formed a capital and operational alliance primarily in order to jointly promote a content and advertising transmission business that will make use of digital signage. The partnership will introduce Will Smart touch-screen digital signage in public places such as train stations, airports, and shopping malls in order to provide maps and tourist information in multiple languages, mainly for foreign tourists.

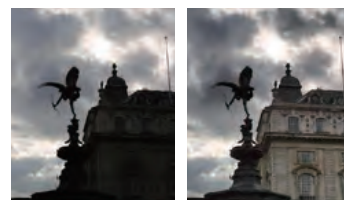


“Will Smart” touch-screen digital signage

### Jun.

#### ○ DNP and Quanta Computer jointly develop color management LSI

DNP and Quanta Computer Inc., a major contract manufacturer of notebook computers and tablet terminals, began working together to develop a large-scale integrated circuit (LSI) that can correct uneven color tones for an entire display. DNP is handling development and manufacturing of the color management LSIs while Quanta Computer is handling development, manufacturing, and sales of the terminals that make use of them. The LSI uses contrast correction technology developed by Apical Ltd. (U.K.) combined with DNP’s unique image-based noise reduction technology to express realistic and aesthetically pleasing images



Before contrast correction (left)

After contrast correction (right)

### Jul.

#### ○ Full-scale startup of operations at Utsunomiya factory making functional materials and active pharmaceutical ingredients

DNP Fine Chemicals Utsunomiya Co., Ltd. (formerly called DNP Fine Chemicals Fukushima Co., Ltd.) began full-scale operation of its Utsunomiya plant. The new plant capitalizes on DNP’s excellent organic synthesis technology. Besides manufacturing active pharmaceutical ingredients and intermediates, it will expand into the new business of producing functional materials used in electronic materials, such as ultraviolet curable resins and color resists used in displays.



Utsunomiya plant

