BUSINESS PROMOTION



Information Communication

Financial Highlights and Business Strategies





FY2021 Financial Highlights

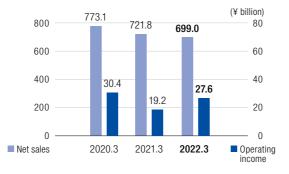
Although sales decreased, operating income increased thanks to a recovery in Imaging Communication and the effect of cost structure reforms.

Net Sales

Operating Income

+43.9%

	(¥ billior	
2020.3	2021.3	2022.3
773.1	721.8	699.0
30.4	19.2	27.6
n 3.9 %	2.7 %	4.0 %
	773.1	773.1 721.8 30.4 19.2



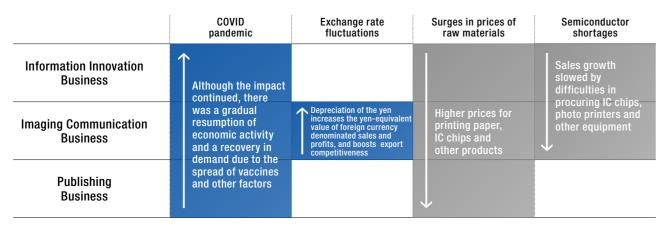
[Net Sales]

Although sales of e-books and library-related services remained strong and the Imaging Communication Business recovered steadily after a sharp decline the previous year, overall sales decreased year on year by 3.2%, or 22,816 million yen, due in part to declines in BPO as well as in the area of printed media, including publication printing and commercial printing.

[Operating Income]

Operating income increased 43.9%, or 8,431 million yen compared to the previous fiscal year due to a significant recovery in the Imaging Communication Business, cost reductions and progress in business structural reforms. The operating income ratio rose 1.3 percentage points to 4.0%, from 2.7% the previous fiscal year.

FY2021: Impact on business units due to changes in business environment



Business Strategies and Main Initiatives toward Achieving Medium-term Goals

1 Create value primarily in growth areas

Supporting people's knowledge and contributing to the development of publishing culture

We will enhance the business of our "honto" hybrid bookstore network that links an e-commerce website where customers can buy e-books and paper books with the brick-and-mortar stores operated by Maruzen Junkudo Bookstores Co., Ltd. In addition, we will support consumers' knowledge through a variety of channels, including the consigned operation of libraries and the provision of electronic library services.

Expand the scale of business by promoting hybrid marketing

Utilizing consumer information from both real and digital sales channels, we will provide the most appropriate information to each individual using the most appropriate channels and timing. We will also participate in the overall marketing of client companies, from planning to production and operation, to design optimal communication measures between companies and consumers to maximize the value of the customer experience.

Efficiently solving and improving company's business issues with BPO

We use advanced security environments, expertise in business design and information management and the latest technologies including AI and RPA* to efficiently solve the myriad of business issues that companies face, from labor shortages and work style reforms to business continuity plans (BCP) in anticipation of emergencies. We also provide new value through consultation for optimizing business design and making operational improvements.

* Robotic Process Automation (RPA): Business automation using robots (software) that utilize Al

Provide unique value and build presence in the authentication and security business

For a range of industries, we will provide a robust security environment that combines information-related and physical aspects, focusing on services that use digital keys to authenticate objects and facial recognition for personal authentication. We will build our presence in the authentication and security market by leveraging our core technologies and

service development strengths, together with our substantial experience in collaborating and consulting with partners.

Promoting digital transformation and accelerating the rollout of new photo services

Utilizing the approximately 7,400 (as of April 2022) networked "Ki-Re-i" ID photo printing machines installed across Japan, we will support electronic application procedures for official certificates and various qualification certification. In addition, we will expand the use of the "Ki-Re-i" system to provide services, such as by collecting on the network photos to create employee ID cards. We will also provide consumers in Japan and abroad with a range of services that enhance the experience value of photography at theme parks and events.

2 Provide value optimized to each country and region

In the field of smart cards, we will work with our business/ capital alliance partners among major card manufacturers in Vietnam and Indonesia to strengthen our business for ID cards and financial institutions cards, primarily in the Southeast Asia region. In the area of photo printing, we will continue to focus on capturing crossover demand from other printing methods to our dye-sublimation thermal transfer printing media for photo prints, mainly in emerging markets, and will continue to promote production in optimal locations on a global scale.

3 Enhance corporate value through all manner of structural reforms

By using marketing that utilizes bookstore data, leveraging our publishing value chain and improving logistics through collaboration with partners, we will promote manufacturing and distribution reforms to provide books in a timely manner. In publication printing and commercial printing, we will optimize our production system to meet the needs of the shrinking paper media market. In BPO-related services, in which various operations are outsourced, we will strive to improve productivity and quality by utilizing AI, robotic process automation and digital workflows, and by effectively utilizing our domestic and overseas bases we will provide services through an optimal system that is not limited by personnel or location.

DNP Integrated Report 2022



Information Communication

Focus Business

Driving digital transformation (DX) and providing customer experience value (CX) that is essential to new ways of working and living

DNP has been entrusted with important corporate and personal information for many years and has been involved in the digitization of the printing process since the 1970s as part of our diverse range of business activities. We are also independently developing technologies for information security, image processing and recognition, media conversion and data analysis. In recent years, as the nature of communication has changed and new workstyles and lifestyles have emerged, we have been promoting DX in ways that only DNP can offer, by combining technologies we have cultivated in the printing process with our expertise in sales, planning and manufacturing, and with the strengths of its partners.

For example, in the business process outsourcing (BPO) business, in addition to 24-hour/365-day support at domestic and overseas locations, we are helping companies and organizations to solve their business issues with speed and efficiency by deploying the latest technologies including Al and RPA to tackle growing social issues from labor shortages and work style reforms to business continuity plans (BCP) in anticipation of emergencies.

We also build and operate a variety of advanced security-related technologies and system infrastructures, leveraging the strength of our smart card business, which has the largest market share in Japan. We also provide physical security for offices and factories, such as security

Future initiatives

gates and surveillance cameras, and train personnel to be able to respond to cyber attacks. In addition, we are expanding our authentication and security business such as by authenticating objects with digital key systems and using facial recognition for personal authentication.

In the field of education, we provide a distribution system for digital textbooks and other materials, and produce educational materials using video, audio and other media. In addition, we provide a network service developed to ease the process of textbook and teaching material selection by connecting many publishers, universities, textbook sales companies and bookstores.

Technology that has Information evolved from authentication to identify individuals and security perform encryption for secure transfer data Technology for Image Information processing high-definition processing processing technologies of still or moving images, and or for identifying people recognition and scenery, etc., from target image data Technology that converts Media text, graphics and other conversion data into an optimal technologies format for various information media Technology that extracts and organizes data on consumer information service usage Data trends, purchasing records, analysis weather, etc., and processes it in accordance with a specific purpose

and services Main products

BP0 (Business Process Outsourcing)

- (Information Processing Services)
- Business support BPO
- Sales support BPO

Authentication/security

- Authentication and ID management
- Cyber security
- IoT/physical security

Educational ICT

- DNP Learning Platform, Realtendant
- Advancement of higher education by establishing NTT EDX Co., Ltd.

Features & strengths

Introduction of the latest technologies such as WebRTC (Real-Time Communication), voice recognition, Al and RPA to develop a range of solutions

Features & strengths

Provision of diverse value by leveraging strengths in service development, collaboration with partners, and consulting such as in planning and design, centered on core technologies applied and developed from smart card security technologies.

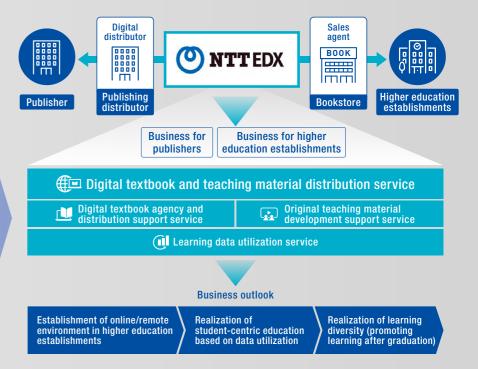
Features & strengths

Combines the technology and know-how of the entire DNP Group with the strengths of partner companies to develop a variety of services that comprehensive strengths.

Expansion of educational ICT-related businesses

New company established to advance higher education

The DNP Group, NTT West and NTT East have been collaborating to advance a shift to a new style of student-centric education with guidance optimized to individual students, and which utilizes a remote environment. In October 2021 the three companies, acting as joint investors, established NTT EDX Co., Ltd. to work toward this goal. We will accelerate the digitization of education using ICT, collaborate with publishers of textbooks and educational materials, and provide a platform service that deploys new value related to higher education to universities nationwide. The DNP Group will digitize textbooks and teaching materials, support the construction of a distribution system and operation of digital distribution services, provide a textbook selection database and support the development of original teaching materials.



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A Lifestyle & Industrial Supplies | Financial Highlights and Business Strategies





FY2021 Financial Highlights

Although sales rose as focus businesses expanded, income decreased slightly due to higher materials costs.



	(¥ billio		
	2020.3	2021.3	2022.3
Net sales	391.4	368.0	387.0
Operating income	11.1	14.0	13.6
Operating income margir	2.8 %	3.8 %	3.5 %



[Net Sales]

Sales of battery pouches for lithium-ion batteries for electric vehicles increased due to expanding global demand, and there was also a recovery in demand in the housing and automobile markets, boosting sales of various interior and exterior materials. Overall, sales increased by 19,023 million yen, or 5.2%, compared to the previous fiscal year.

[Operating Income]

Operating income decreased by 2.4%, or 340 million yen, compared to the previous fiscal year, largely due to a sharp rise in raw material prices. Operating income margin declined 0.3 point from 3.8% the previous fiscal year, to 3.5%.

FY2021: Impact on business units due to changes in business environment

	COVID pandemic	Surges in prices of raw materials	Semiconductor shortages
Packaging Business	Continued restrictions on peoples movements in Japan and abroad		
Living Spaces Business	Gradual resumption of economic activity and recovery in demand	Increased procurement costs for petrochemicals and aluminum	
Industrial High-performance Materials Business	Auto supply chains impacted by disruptions in international distribution networks		Sales growth slowed due to reduced automobile production

Business Strategies and Main Initiatives toward Achieving Medium-term Goals

• Create value primarily in growth areas

• Striving to realize a decarbonized society, recycling-oriented society and society in harmony with nature through All DNP

By enhancing products and services and promoting the development of mechanisms for eco-friendly packaging, including plant-based packaging materials and mono-material packaging materials, we provide three forms of value, namely resource circulation, CO2 reduction and preservation of the natural environment. In addition, as demand for clean energy grows, we will develop and provide products and services that reduce our environmental burden, such as back sheets and encapsulants for solar cells with excellent power generation efficiency and long life.

Providing high value-added products

Seeing not only homes and commercial facilities but also vehicles and rail cars as living spaces that require comfort and function, we will strive to expand our market share of high value-added products utilizing DNP's proprietary electron beam (EB) coating technology. We will also further expand our lineup of high-function, high value-added products, such as anti-bacterial and anti-viral products for interior applications and products for exteriors, for which demand is expected to grow.

Developing products and services for a next-generation mobility society

We will continue to provide high value-added products and services to realize a next-generation mobility society. We will further concentrate on expanding the business of battery pouches for lithium-ion batteries, which are in growing demand for use in electric vehicles. We will also provide high value-added products and services such as films and formed products for interior and exterior use that feature excellent design and functionality, new products such as curved resin glazing that helps reduce the weight of vehicle bodies. sheet-type coils for wireless power supply that can charge without contact and Mobility as a Service (MaaS).

2 Provide value optimized to each country and region

With the aim of expanding our market share in Southeast Asia, our Packaging Business will expand sales in Indonesia and Vietnam, where our production bases are located, as well as to neighboring countries such as Thailand and Myanmar. This is part of our efforts to expand our share to global companies.

Our Living Spaces Business is utilizing our global sales network to expand our market share in Europe, the United States and emerging countries for metal panels and interior and exterior materials for automobiles with excellent design.

Our Industrial High-performance Materials Business will construct a new slit processing line for lithium-ion battery pouches at the Denmark Plant that is scheduled to start operation in the latter half of fiscal 2022, as we accelerate our expanding share in the global market for battery pouches for lithium-ion batteries, photovoltaic module components and industrial barrier films.

3 Enhance corporate value through all manner of structural reforms

In the Packaging Business, we consolidated facilities in the Kansai region at the Tanabe Plant (Kyoto Prefecture) within fiscal 2021 as part of a review of low value-added products and site reorganization. In addition, in the Industrial High-performance Materials Business, we established a new production line for lithium-ion battery pouches at the Tsuruse Plant (Saitama Prefecture) in fiscal 2022. Looking ahead, we will continue to review our business portfolio and promote enhanced productivity, improved profitability and other advancements.

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Lifestyle & Industrial Supplies | Focus Business

Providing the essential values of safety, security, health, comfort and environmental consciousness with functional films that utilize converting technology

DNP develops and provides a wide variety of functional film products, leveraging its strengths in converting technology, a unique material processing technology that includes coating,

in many other fields. To meet these needs and anticipate further expectations, we are working to improve film characteristics, such as gas barrier properties against water

will also expand the market for high-performance products such as the DNP Multifunctional Insulation Box, which can

Future initiatives

weather resistance, soiling resistance and scratch resistance, this technology also imparts greater freedom of form such as in bending and folding. It also contributes to environmental production processes, CO₂ reduction and the use of solvent-free coating, etc. In the Living Spaces Business, we

A processing technology that applies and attaches a coating material thinly and uniformly to a substrate surface. By combining this technology with substrate design technology, it is possible to form coating films with a variety of functions such as optical properties, barrier properties and heat resistance.

deposition

vacuum to vaporize a material and deposit it on a substrate material such as plastic film to produce an ultrathin film of high purity

EB® hardening echnologies

Laminating

A technology that uses a

services

and

products

Main

A technology that instantly makes resins and coating films highly functional by irradiating them with electron beams. This makes it possible to impart functions with long-term durability such as scratch resistance, weather resistance, soiling resistance, antibacterial and antiviral properties.

A technology that evenly bonds separately-produced materials including films, metals and resins. Bonding multiple functional materials according to the application produces even better results.

Eco-friendly packaging materials

- DNP plant-based packaging materials
- Transparent vapor deposition film
- DNP mono-material packaging materials

Mobility-related products

- · Lithium-ion battery components
- Battery pouches (exterior film wrap) Battery contact tab foil
- Decorative panels that feature excellent functionality and design
- Resin products that contribute to automotive weight reduction

Industrial highperformance materials

- Encapsulants and back sheets for photovoltaic cells
- Medical and industrial components
- DNP Multifunctional Insulation Box

Features & strengths

We develop functional materials that reduce the environmental burden, improve the protection and preservability of contents and support simple cooking using microwave ovens, providing users with greater usability.

Features & strengths

Future initiatives product lines that make use of technologies such as coating and lamination. We develop various products that make rechargeable batteries lighter, thinner, longer and safer, and resin molded products with enhanced surface resistance and functionality.

Features & strengths

With a proven record of stable quality as our strength, we provide new value in products such as solar cell materials for the expansion of renewable energy and products for medical, pharmaceutical, industrial applications.

Expanding the lithium-ion battery pouch business

 DNP will maintain and strengthen its global market share leadership by leveraging its strengths in converting technology and other areas to establish de facto standards in the industry and further expand applications.



 Establishment of new production bases to enable further capacity expansion beyond fiscal 2023



For lithium-ion battery pouches overall

sales of ¥100 billion in fiscal 2024

technologies

Core

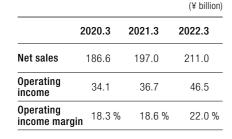
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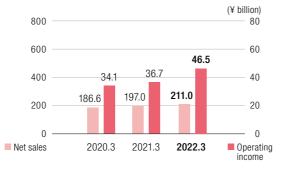


FY2021 Financial Highlights

Sales and operating income rose due in part to growing demand for information terminals.







[Net Sales]

Optical film sales increased overall, although some products were affected by domestic stay-at-home demand coming to an end. Sales of metal masks for manufacturing OLED displays rose, driven by robust smartphone demand for such displays. With various other products in the Electronic Devices Business also performing well, overall segment sales increased 7.1%, or 14,073 million yen, compared to the previous fiscal year.

[Operating Income]

Due to higher net sales and the results of business structural reforms, operating income rose 26.7% year on year, or 9,791 million yen. Operating income margin rose 3.4 percentage points from 18.6% to 22.0% .

FY2021: Impact on business units due to changes in business environment

	COVID pandemic	Exchange rate fluctuations	Surges in prices of raw materials	Semiconductor shortages
Display Components Business	Optical film business remained firm due to the spread of teleworking and online classes	Due to the depreciation of the yen, in yen terms sales and		
Electronic Devices Business		profits denominated in foreign currencies increased, improving export competitiveness		Increased demand for photomasks for manufacturing semiconductors for telecommunications automotive and dacenters

Medium-term Management Plan



Business Strategies and Main Initiatives toward Achieving Medium-term Goals

1 Create value primarily in growth areas

Strengthen development of products for OLED displays

In anticipation of growing demand for small and medium-sized OLED displays for smartphones and tablet devices, we will increase production capacity for metal masks used in manufacturing OLED displays, for which we hold the top share in the world market. We will also focus on developing products which meet various needs, including foldable displays and rollable displays.

As one example, we will develop flexible functional film that combines excellent transparency, hardness and bending resistance, which will be supplied mainly to panel manufacturers.

Developing and providing new products that enhance the added value of 5G next-generation communications

Using etching technology honed through the development of high-precision photomasks used for manufacturing semiconductor devices, DNP has developed vapor chambers, which are thin heat-dissipating components that suppress overheating in 5G-compatible devices. We have reduced the thickness of these components to just 0.2 mm, and they are currently being evaluated by manufacturers of smartphones and other devices. We are also working on the mass production of transparent antenna film comprising transparent film on which invisible thin metal wiring is formed to receive 5G radio waves. In addition to displays, this film can be affixed to walls, windows and ceilings of buildings, car glass and utility poles, etc., thereby contributing to the realization of 5G communications that integrate into daily lives. Through the development and provision of these new products, we will continue to create value in the form of information terminals that are smaller and have more advanced functionality for the 5G communication environment and beyond.

Refine and commercialize next-generation photolithography-related technology

We will provide EUV masks for cutting-edge semiconductors used in extreme ultraviolet (EUV) lithography, a high-performance semiconductor manufacturing technology that is essential for an advanced information society. DNP was the first dedicated photomask manufacturer in the world to introduce multi-beam mask writing (MBMW) tools. We have

not only boosted the productivity of next-generation photomasks for semiconductors, but have also built proprietary manufacturing processes, making DNP the first dedicated photomask manufacturer to develop 5nm* process node EUV masks. Looking ahead, we will provide cutting-edge EUV masks to semiconductor manufacturers, research institutions and device manufacturers in Japan and around the world.

In addition, with the semiconductor industry needing to further reduce energy consumption to achieve a decarbonized society by the year 2050, DNP is focusing on the development of master templates for semiconductor nanoimprint lithography (NIL), a decarbonization technology that dramatically reduces energy consumption during semiconductor manufacturing. As the world's only manufacturer of master templates for semiconductor NIL, we will contribute to the formation of a decarbonized society through the supply of micro-sized products for next-generation semiconductors.

* nm: nanometer (10-9 meter)

2 Provide value optimized to each country and region

We will utilize our semiconductor photomask bases established in Taiwan and China as a joint venture with Photronics, Inc. (USA) to provide various products that incorporate our unique strengths. We will also pursue cooperation on the technical side to launch even finer photomasks in East Asian and Western markets. In addition, we will keep close watch on global supply chain issues and country risks, monitor and analyze the social issues and needs of people in each country and region and strive to provide the value they need.

Enhance corporate value through all manner of structural reforms

We will continue to promote the transformation of our business portfolio with consideration for profitability and market growth. As part of this transformation, in November 2021 we shut down the business of color filters for LCD displays, which had suffered from declining competitiveness due to market changes, to shift to high value-added products related to OLED displays. We will also advance the shift to products that support a digital society such as IoT and 5G to boost earnings strength. In particular, in our overseas business, we will respond more flexibly to fluctuations in exchange rates and raw material prices in order to minimize the impact on business results.

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Future initiatives



Developing and providing key components that highly integrate real and digital, such as optical films utilizing clean converting technology

In a society where everything is connected to the Internet, DNP is leveraging its unique strengths to develop a variety of products and services that enhance the value of people's

virtual worlds. These developments are made possible by our clean converting technology, which combines optical technologies with precision thin-film coating and precision

easier to see by reducing light reflection, and which continue to gain a high market share. We will continue to work on higher-definition, multi-functional and energy-saving displays, providing a wide range of products unique to DNP and our mastery of the characteristics of light.

We have the top share of the parameter in the

masks which are an indispensable component in the production of OLED displays, which are becoming will continue to use our unique photolithography and etching

a heat-dissipating component that by preventing information devices from overheating, increases the degree of freedom in designing smartphones and other devices. We are also developing 5G-compatible products such as transparent antenna films that can be affixed to displays, walls, windows, ceilings, automotive glass, utility poles, etc. DNP will continue

converting

Photolithog-

raphy

Patterning

Coating

Various technologies (precision molding technologies) for processing materials into optimal shapes in a highly clean air atmosphere. Results in unique strength when combined with technologies such as precision thin film coating.

A technique for duplicating a plate image onto the surface of a resin or metal substrate coated with photosensitive material

and services

products

Main

A technique for creating plate images of text, photographs, illustrations, etc., developed in the printing plate making process. A detailed print image is drawn on a film, for example, and "burned" onto a resin or metal plate for printing.

A technique of applying and fixing a material such as ink on a printing plate to paper or film, etc. It also includes the applying and attaching of a coating material thinly and uniformly to a substrate surface.

Optical films

- Anti-reflection film
- Retardation film
- Viewing angle control film

OLED display manufacturing

components Metal masks

5G-related

- Photomasks for semiconductors
- Vapor chambers
- (metallic heat-dissipation component)
- Transparent antennas film

Features & strengths

We are the world's pioneer in the development of various components and materials for advancing displays, such as flexible LCDs, OLEDs and electronic paper.

Features & strengths

Developed metal masks for manufacturing high-precision OLED displays with the world's top market share. Our development of cutting-edge products is based on our strengths in technology accumulated over 65 years, starting with the development of shadow masks for cathode ray tubes at the dawn of the emergence of domestic color televisions.

Features & strengths

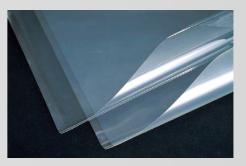
With its strength in various microfabrication technologies, circuit formation and electronic component mounting technologies, the company provides components for 5G-related precision equipment and antennas for "5G communications that integrate into our daily lives."

Expansion of optical film-related business

Securing market share in China with the ultra-wide line at the Mihara plant in **Hiroshima Prefecture**



Improving the competitiveness of products



Expanding sales of optical film products for OLED displays, which require further added value

technologies Core

Microfabrication