

DNP Group IR-Day 2025

DNP

July 10, 2025

Dai Nippon Printing Co., Ltd.

DNP Group IR-Day 2025

DNP

(1) Progress and evaluation of the mid-term management plan, looking ahead

President

Yoshinari Kitajima

(2) Approach to Sustainable Growth

Senior Managing Director

Toru Miyake

(3) Business strategy

Information Security

Senior Corporate Officer

Yoshiki Numano

Photo Imaging

Senior Corporate Officer

Kazuo Murakami

Mobility

Senior Corporate Officer

Go Miyazaki

**Industrial High-Performance Materials
Battery Pouches**

Corporate Officer

Ariyoshi Matsumura

**Semiconductors
Photomasks for Semiconductors, Glass Core**

Senior Corporate Officer

Minoru Nakanishi

**Digital Interfaces
Optical Films, Metal Masks**

Corporate Officer

Nobuyuki Tomizawa

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Brand Statement

Creating future standards.

The DNP Group aims to realize a sustainable society, and its corporate philosophy is to connect individuals and society and provide new value. Based on this philosophy, the Group will conduct business activities that create a better future with a long-term view in order to realize a sustainable, better society and more comfortable lifestyles.

Through such initiatives,
the DNP Group will create sustained business value and shareholder value,

with an ROE target of 10%, and
expedite achieving a PBR of more than 1.0X.

Business Strategy

- Promote business structure transformation and accelerate concentrated investment in priority business and new business linked to the resolution of social issues and megatrends.
- Transform risks in a changing business environment into opportunities for growth through the evolution and cultivation of core technologies.

Financial Strategy

- Create funding for investment in growth through cash flow generated through business activities, in addition to maximization of efficiency of funds including acceleration of the reduction of assets held.
- Plan the largest acquisition of treasury shares in DNP's history with the aim of improving capital efficiency.
- Seek to further enhance shareholder returns conscious of indicators such as EPS while maintaining stable finances for sustained corporate activity.

Non-Financial Strategy

- Expand investment in people based on the Human Capital Policy.
- Enhance intellectual capital utilizing DNP's unique strengths and external partnerships.
- Contribute to the realization of a decarbonized society, a recycling-oriented society, and a society in harmony with nature.

Progress of the Medium-term Management Plan



Business Strategy

We will concentrate our investment on focus businesses and new businesses that are closely aligned with addressing social issues and megatrends. Additionally, we will engage in business restructuring. Through these initiatives, we aim to increase our profits from our activities.

Major KPIs

Profit	Operating Profit: ¥130 billion or more
Capital Efficiency	ROE 10%
Growth Investment <small>FY2023 to FY2027</small>	¥390 billion or more (Including investment of ¥260 billion or more in focus business areas)



Results and Issues

- ✓ Results for the fiscal year ended March 31, 2025: **¥93.6 billion in OP.**
 - ✓ Steady growth in growth areas and contribution from structural reform.
 - ✓ Achieved OP target for final year of Medium-term Management Plan one year ahead of schedule.
-
- ✓ Results for the fiscal year ended March 31, 2025: 9.6% ROE.
 - ✓ **ROE excluding extraordinary P/L was around 7%**, and increased to a level equivalent to the cost of shareholders' equity (estimated to be 6%–8%).
-
- ✓ 2-year cumulative results: ¥267 billion (68% progress).
→ ¥122 bn in business investment, ¥145 bn in capital investment
 - ✓ Implemented **active investment centered on focus business areas.**

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Business Growth Outlook for FY2025 and Beyond

Unit: ¥ bn **DNP**

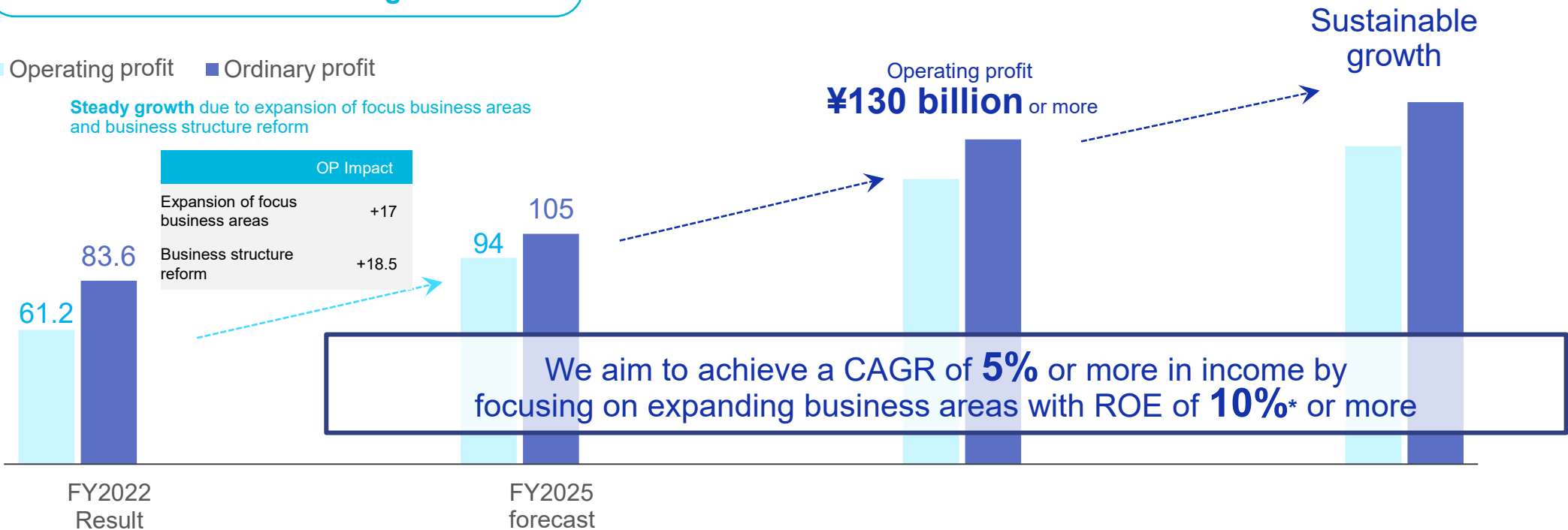
We aim to achieve sustainable growth by expanding business areas with high asset efficiency.

Current Medium-term Management Plan

■ Operating profit ■ Ordinary profit

Steady growth due to expansion of focus business areas and business structure reform

OP Impact	
Expansion of focus business areas	+17
Business structure reform	+18.5

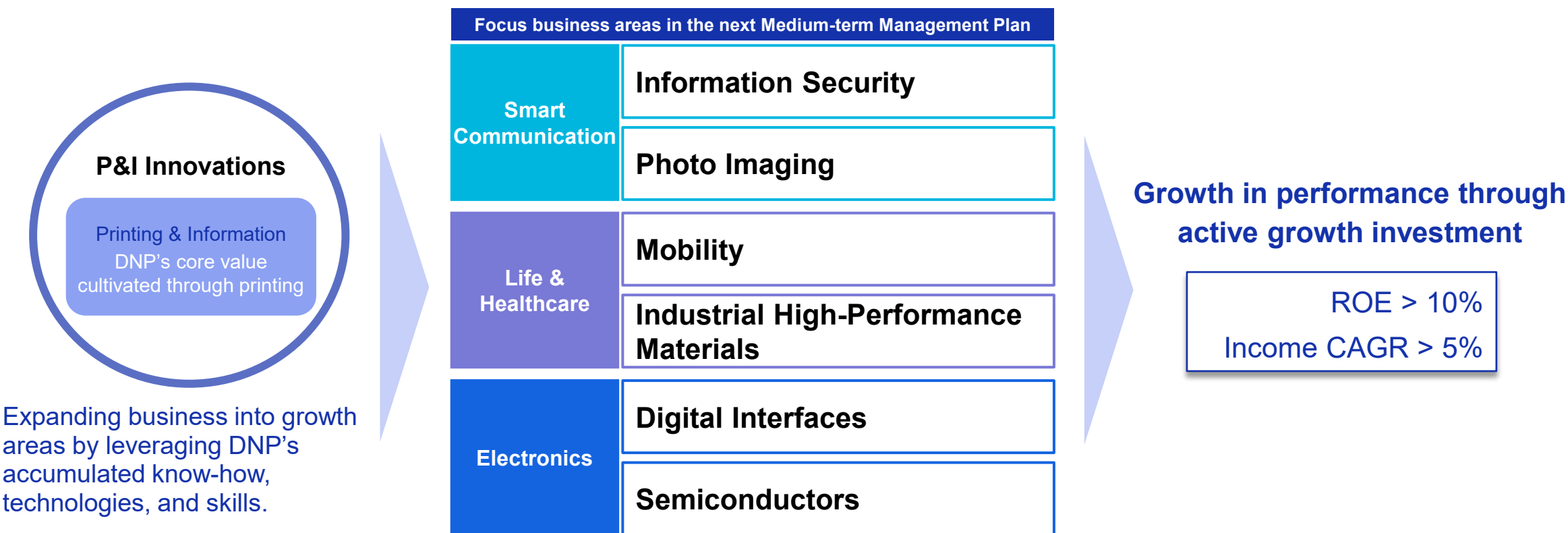


* We will manage ROE for each business by roughly estimating net income and net assets.

Business Policy for the Next Medium-term Management Plan















We have identified new focus business areas by determining businesses that have achieved high market share, strong profitability, and sustainable growth through P&I innovation, which is our core value cultivated through printing.



Details of the Focus Business Areas

Unit: ¥ bn **DNP**

We will actively invest in growth across six business areas that hold a high market share, demonstrate good profitability, and have potential for sustainable development, thereby driving performance growth

	Market share		Profitability		Growth potential
	Business Area	Main Products	FY2024 Sales*2	ROE*3	Market Environment (CAGR 2024–2029)
Newly Added	Information Security	 Smart cards (No. 1 domestic share)	177		Approx. 7% Information Security market
Newly Added	Photo Imaging	 Dye-sublimation thermal transfer printing media (No.1 global market share)	74		Approx. 7% Photo related market
	Mobility*1	 Automotive interior and exterior decorative films	71		Approx. 13% High-end HMI market
	Industrial High-Performance Materials	 Battery pouches (No.1 global market share)	60		Approx. 15% EV market
	Digital Interfaces	 Optical film, metal masks (No.1 global market share)	182		Approx. 5% Digital interfaces market
	Semiconductors	 Photomasks for semiconductors production (Top-level market share in photomasks for external sales)	66		Approx. 8% Semiconductor market

*1 We will integrate Mobility with the Living Spaces business in October 2025.

*2 The calculation standard for Information Security and Photo Imaging has changed from the figures disclosed for FY2024.

*3 We will manage ROE for each business by roughly estimating net income and net assets.

▲
10%

Growth Investment in Focus Business Areas

Unit: ¥ bn **DNP**

Growth investment and infrastructure development investment

¥390 billion or more (cumulative amount for FY2023–FY2027)

FY2023 to FY2027

¥390 bn

Focus business areas and growth investment

¥260 bn or more

Infrastructure investment
(Including updating facilities, etc.)

Investment in establishment of infrastructure, etc.

¥130 bn or more

**FY2023 to FY2024
Cumulative Results**

**2-year
progress of plan
68%**

¥267 bn

Business investment
122

Capital expenditures
145

**FY2025
Plan**

Business investment

Capital expenditures
80

Major Topics

FY2025

Information Security

- ✓ Made Rubicon SEZC, which provides government ID authentication services, a consolidated subsidiary.

FY2025 onwards

Semiconductors

- ✓ We will increase production capacity for Photomask for Semiconductors.
- ✓ We plan to start operation of the glass core pilot line at Kuki Plant at the end of 2025.

FY2025

Digital Interfaces

- ✓ Scheduled to begin mass production of the new optical film production line at Mihara West, currently under construction this fall.

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Information Security

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Business Overview

DNP

The Information Security business is essential for a smart society where all people and objects are connected safely, securely, and comfortably.

In a connected society where people and objects interact in both virtual and physical spaces, DNP strives to create an environment where **everyone can live comfortably, safely, and securely without being aware of it**. With a **strong history of responsibly managing personal information, along with the technical expertise and operational capabilities gained as Japan's leading smart card vendor**, we have **integrated manufacturing and services to evolve our business** and become a trusted partner for our customers. By leveraging the knowledge acquired from our information security operations in Japan, we are **expanding globally**, particularly **focusing on investments in emerging markets** that exhibit promising population growth and economic development.

Main Products and Services in the Information Security Business



Smart Cards and Digital Keys

Since we developed rewritable smart cards in 1983, we have become **the leading domestic vendor of smart cards**. Additionally, using our advanced cryptographic key technology, we offer a digital key platform that allows users to lock and unlock cars, homes, lockers, and other devices with their smartphones. **For automotive applications, we adhere to the industry standards set by the CCC*.**

* CCC: Car Connectivity Consortium



Factory Security and 3D Secure

In recent years, there has been a significant increase in cyberattacks targeting factories. We offer **solutions for these facilities by utilizing our expertise in security measures, proven at our smart card factories and other sites**. Additionally, we provide **3D Secure, an online credit card authentication service** that has grown in popularity since it became mandatory in Japan at the end of March 2025.



BPO

BPO (Business Process Outsourcing) services manage a company's business processes and **help customers optimize their business operations**. We provide **a variety of high-value-added services** in a secure environment, offering a **one-stop solution**.



AI Review and AI-Ready Data

We are **offering businesses that utilize AI**. Our **AI review service automate and streamline proofreading and review tasks for marketing materials, as well as terms and conditions**. Furthermore, we are focusing on our **AI-Ready Data service**, which use AI document structuring technology.

History of the Business

DNP

We have gained extensive expertise in security-related businesses over approximately 150 years since the industry's inception.

Since our founding in 1876, we have grown our business through a practice known as "**expansion printing**." Our printing operations have always involved handling confidential information, such as pre-release product details from customers, and manufacturing printed materials in a **highly secure environment**. In today's world, the three key elements of "**confidentiality**," "**integrity**," and "**availability**" are crucial to information security. We are committed to maintaining and enhancing these principles, and through years of accumulated expertise, we have developed **advanced IT/OT* technology**. This technology serves as the foundation of our information security business.

Towards an environment where everyone can live comfortably, safely, and securely without being aware of it

* IT: Information Technology
OT: Operational Technology

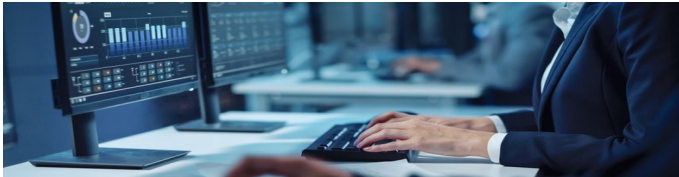
- 2025 Made Rubicon SEZC a consolidated subsidiary
- 2024 Connectivity verification of distributed ID with MUFJ Bank and Australia-based Meeco
- 2023 Started AI-Ready Data business
- 2020 Started provision of digital key platform for automobiles
- 2016 Started operation of cyber knowledge academy for developing personnel to address cyber attacks
- 2014 Business and capital alliance with MKSmart, the largest smart card manufacturer in Vietnam
- 2010 Undertook operations to convert a major life insurer to a joint stock company
- 2010 Made Intelligent Wave (IWI) a consolidated subsidiary handling payment systems security products
- 2001 Started supply of SIM cards for mobile carriers
- 1983 Developed re-writable smart cards
- 1973 Established framework for mass production of magnetic-stripe plastic cards
- 1946 Printed Bank of Japan notes (banknotes)
- 1899 Printed Osaka Municipal port construction bond certificates
- 1876 Founding of Shueisha, DNP's predecessor



Our Strengths

DNP

We have developed our business by leveraging our three strengths—(1) proprietary ICT and security technology, (2) robust security framework and (3) one-stop service—and have earned the trust of our customers through our many years of experience.



(1) Proprietary ICT and security technology

We have developed unique ICT and security technologies through the development of smart card operating systems and manufacturing process design. These innovations have been applied to the development of security software, management of cryptographic key, product development, and manufacturing technologies, earning us international acclaim. Our team consists of approximately 1,800 ICT professionals.

Authentication and ID management

Online identity verification services, smart card readers

Monitoring and management

Surveillance cameras/systems, access gates

IoT and devices

NFC tag authentication, IoT platform, digital keys.

Cybersecurity

Endpoint security, cracking prevention

Cryptographic key management

Cryptographic key management systems, hardware security modules

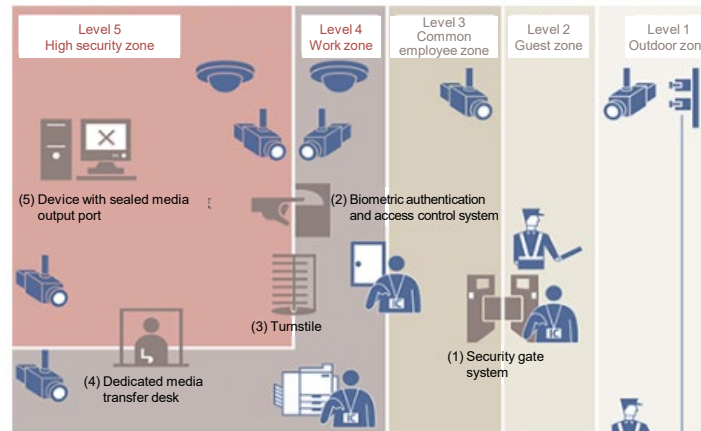
Security consulting and education

Information security consulting, human resource development and training programs



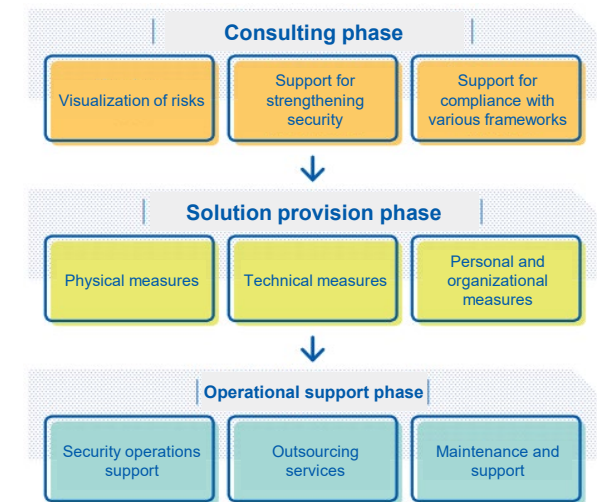
(2) Robust security framework

Our manufacturing and development sites across Japan have established advanced and robust security systems that combine hardware measures such as surveillance cameras and access restrictions with software measures such as cyber attack countermeasures and thorough employee training. We have also obtained the highest ratings for business continuity and risk management.



(3) One-stop service

We provide one-stop services ranging from consulting to provision of solutions and operation in many industries, including finance, manufacturing, retail, infrastructure, and the public sector.

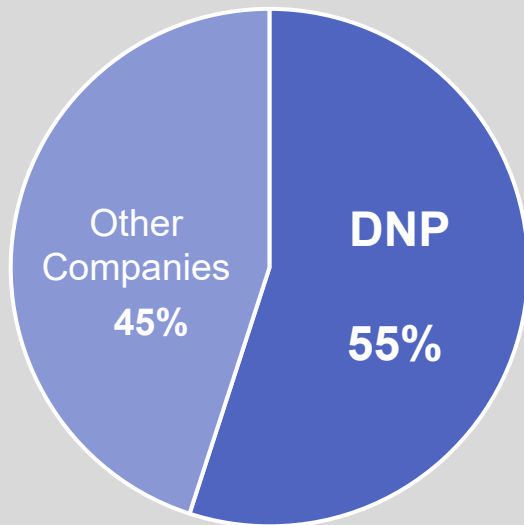


Market Share (Example)

DNP

We are a global leader in smart cards, which is vital for ensuring safe and secure payment transactions. In Japan, we hold the largest market share in both manufacturing and issuance of these cards. Additionally, we offer authentication services, such as FEP*, for online payments, which significantly supports the government's efforts to promote cashless transactions.

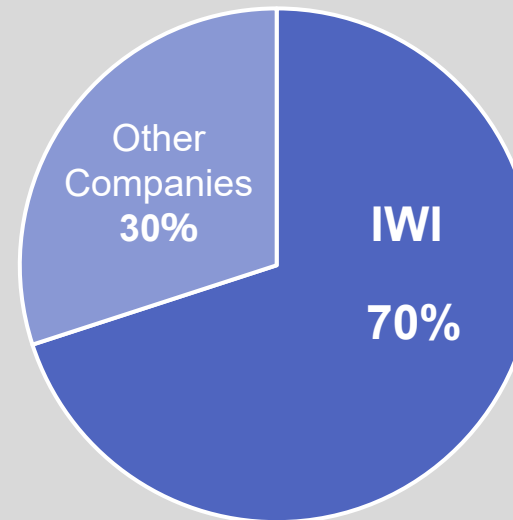
We have the leading share of smart cards in Japan



Number of dual interface cards manufactured in Japan

Excerpt from Fuji Chimera Research Institute, *Digital ID/Authentication Solutions Business Market Research Handbook 2024*
FY2023 results, volume basis

FEP*
Intelligent Wave (IWI, part of the DNP Group) has the leading share in Japan



Number of major credit card companies using the technology (surveyed by IWI)

* Abbreviation of Front End Processor, a system that connects to card companies and various payment networks, and authenticates card usage during card payments.
FY2023 results

Initiatives for Growth Markets



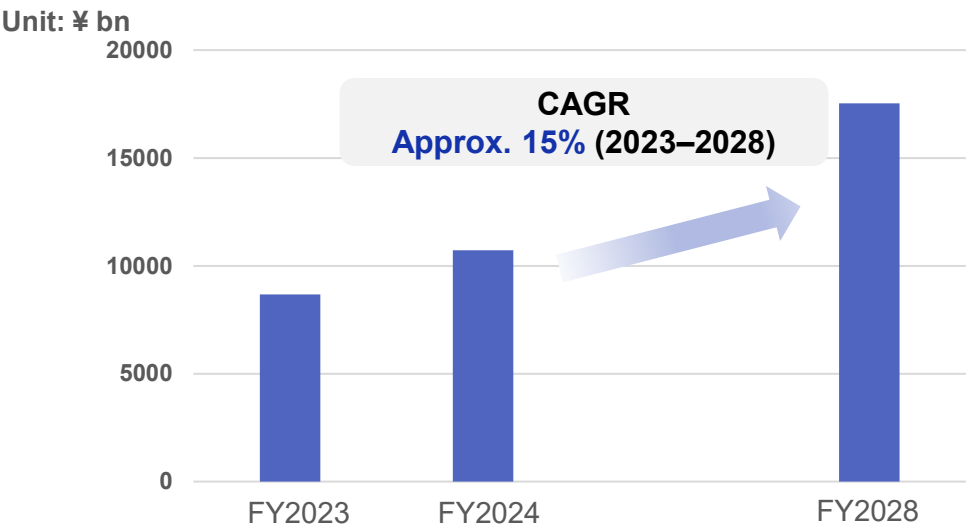
We have acquired Rubicon SEZC, a company that provides government-oriented ID authentication services for the registration and authentication of personal information. We will strengthen our efforts in regions such as Africa, Asia, and South America, where we anticipate significant market growth in the future.

We have made investments in Vietnam MKSmart (2014) and established PT. Wahyu DNP Bureau, a joint venture with Wahyu Kartumasindo International in Indonesia (2016), among other initiatives.

In July 2025, we acquired Rubicon SEZC Co., Ltd. as a group company. Operating under the Laxton brand, the company provides biometric ID authentication services mainly to governments in emerging countries, particularly in Africa. It offers a comprehensive range of services that includes business consulting, registration and authentication of biometric information, software solutions, as well as maintenance and support. **Rubicon has a proven track record, having successfully implemented its services in over 50 countries and regions worldwide.**

Through the acquisition of Rubicon, we aim to maximize synergies between the two companies and **achieve cumulative sales of 140 billion yen in the overseas government ID authentication service business by fiscal 2030.**

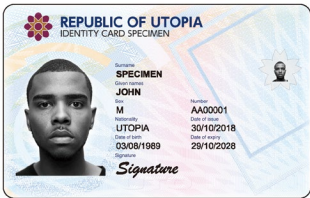
Forecast of Government Biometric Authentication Market (Global)



Source: DataIntel Solutions LLP



Rubicon SEZC's devices and software for registering and authenticating individuals' biometric information (face, fingerprints, iris)



National ID cards and voter registration cards issued instantly on site

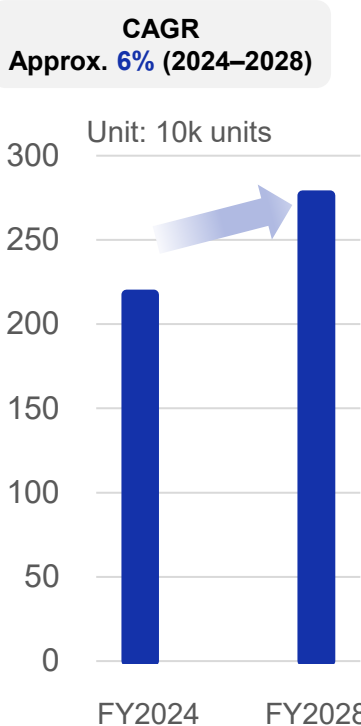


Signing Ceremony with Rubicon Corporation Amsterdam, Netherlands
June 17, 2025

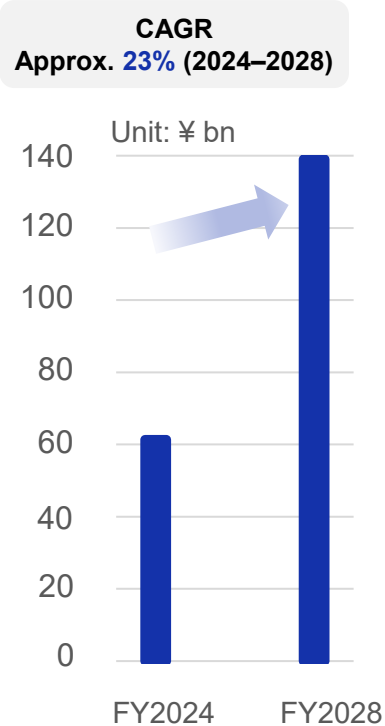
Market Environment

The information security market is expected to experience stable growth due to ongoing digital transformation, an increase in cyber-attacks, a rise in online payment transactions, and shortage of labor.

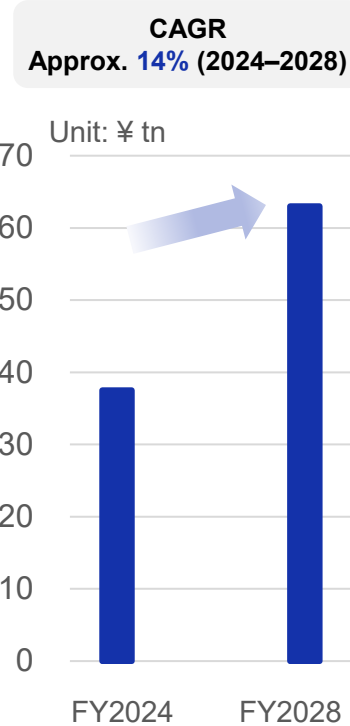
Forecast of Domestic Shipments of Vehicles Equipped with Digital Keys



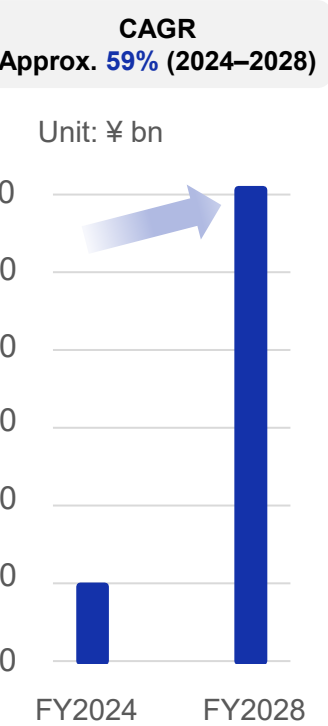
Domestic Plant Security Market Forecast



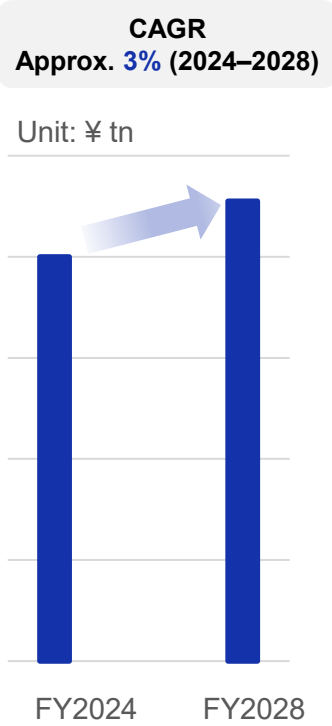
Domestic Online Payment Transaction Volume Forecast



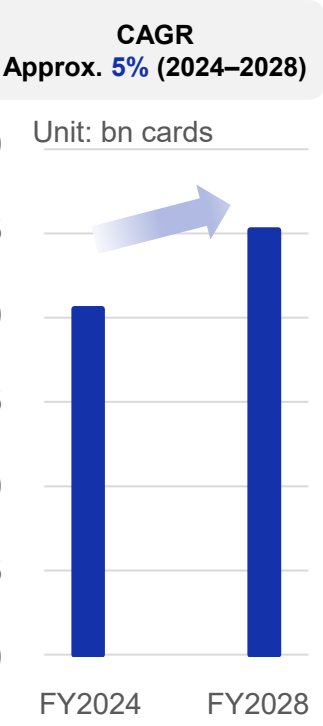
Domestic Corporate AI-Ready Data Market Forecast



Domestic Non-IT BPO Market Forecast



Global Financial Card Market Forecast



Market forecasts are calculated based on DNP's own estimates added to the references.
* References: Statistics Bureau, Ministry of Internal Affairs and Communications; Ministry of Economy, Trade and Industry, etc. 18

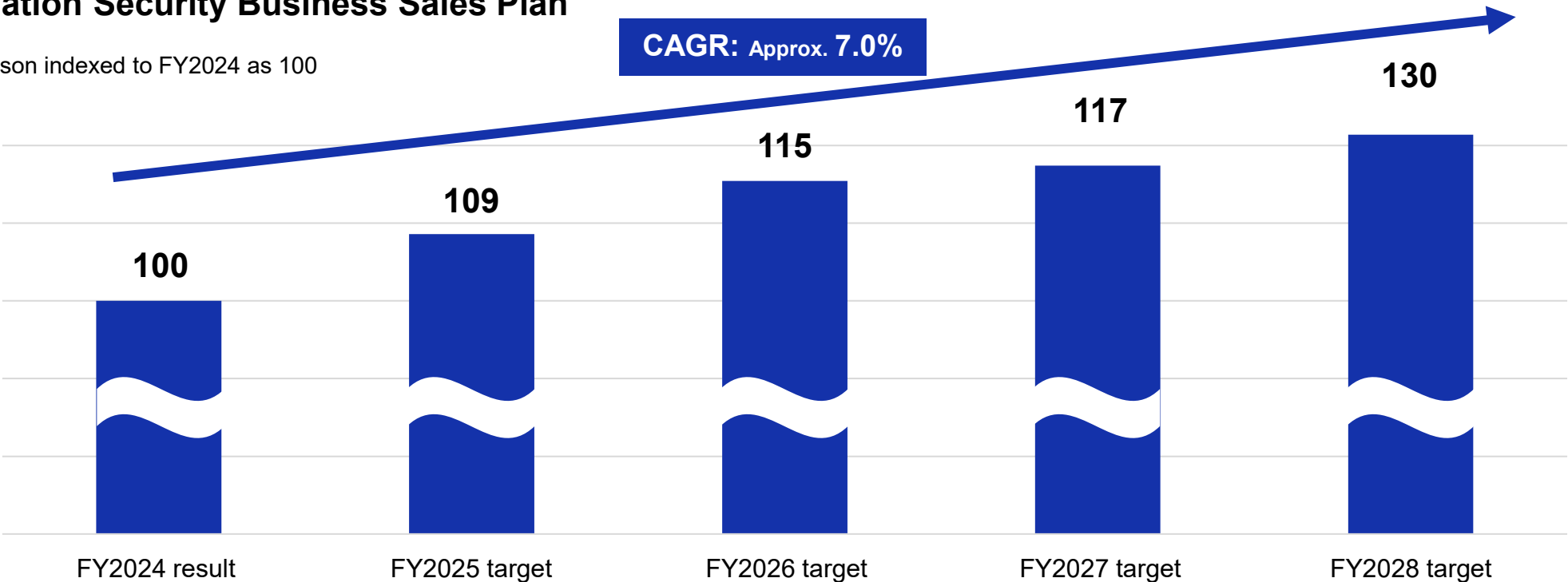
Growth Strategy and Performance

Growth Strategy

- Provide high-value services to the market by **effectively combining products and services**.
- Increase market share by **leveraging the strengths of DNP's information security business and fostering collaborative relationships with partner companies**.
- Encourage proactive investment in promising markets, such as **emerging countries that are expected to experience population growth and economic development**.

Information Security Business Sales Plan

Comparison indexed to FY2024 as 100



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Business Overview: Our Main Products and Services



We utilize the coating technologies we have developed through printing to plan, develop materials, manufacture, and sell a wide range of imaging products and services through our manufacturing and sales bases in Japan, North America, Europe, and Asia.

Dye-sublimation Thermal Transfer Printing Products

DNP-branded photo printers and medias



- Dye-sublimation thermal transfer printing media
- Dye-sublimation digital photo printers
 - DS620: 4×6"
 - DS820: 8×10"
 - DS820DX: 8×10" Double-sided multi-function
 - RX1HS: Emerging market model

Photo Services and Solutions



- Theme park photography (Colorvision, etc.)
- Fan photo booth (Innovative Foto, etc.)
- Event photography system (sharingbox, etc.)
- Ki-Re-i ID photo booth
 - DNP facial image collection service
 - Profile photo service

Products with Leading Global Market Share

DNP

Dye-sublimation thermal transfer printing media for photo printing is widely used worldwide for digital image output. We have expanded our business by establishing overseas bases and through mergers and acquisitions, maintaining a global market share of approximately 70%.

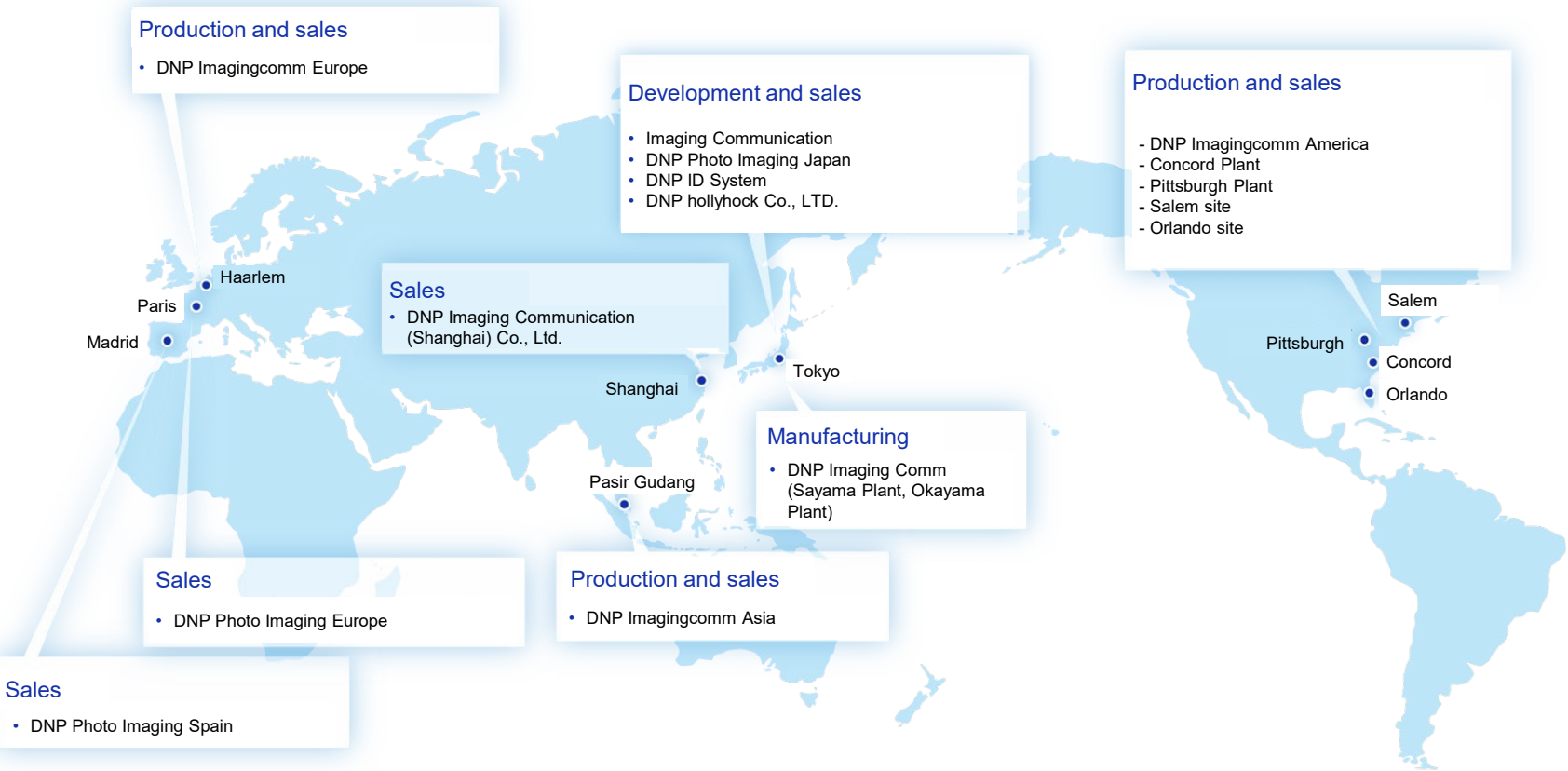


- | | |
|------|--|
| 1981 | Started fundamental consideration of dye-sublimation thermal transfer printing media through the application of printing technology |
| 2004 | Started photo business in the United States |
| 2005 | Started photo kiosk printing business in Japan |
| 2006 | Acquired photo business from the <u>Konica Minolta Group</u> (strengthened our sales sites) |
| 2007 | Started photo business in Europe |
| 2011 | Acquired digital photo printer business from <u>Sony</u> (strengthened our development capabilities) |
| 2013 | Established manufacturing site in Malaysia |
| 2016 | Established a photo division at DNP's Shanghai Group company |
| 2020 | Acquired all shares of US-based <u>Colorvision International</u> (strengthened “Kotozukuri,” experience-based value creation) |
| | Acquired all shares of Belgium-based <u>Sharingbox</u> |
| 2023 | Established sales site in Spain |

Global Sites and Supply Chain



We operate over 300,000 printers in more than 100 countries around the world through distributors and sales agents. Annually, we provide over 4.8 billion photo prints, and our strengths include product development that reflects market trends and optimal production efficiency.







**Distributors
Sales agents**



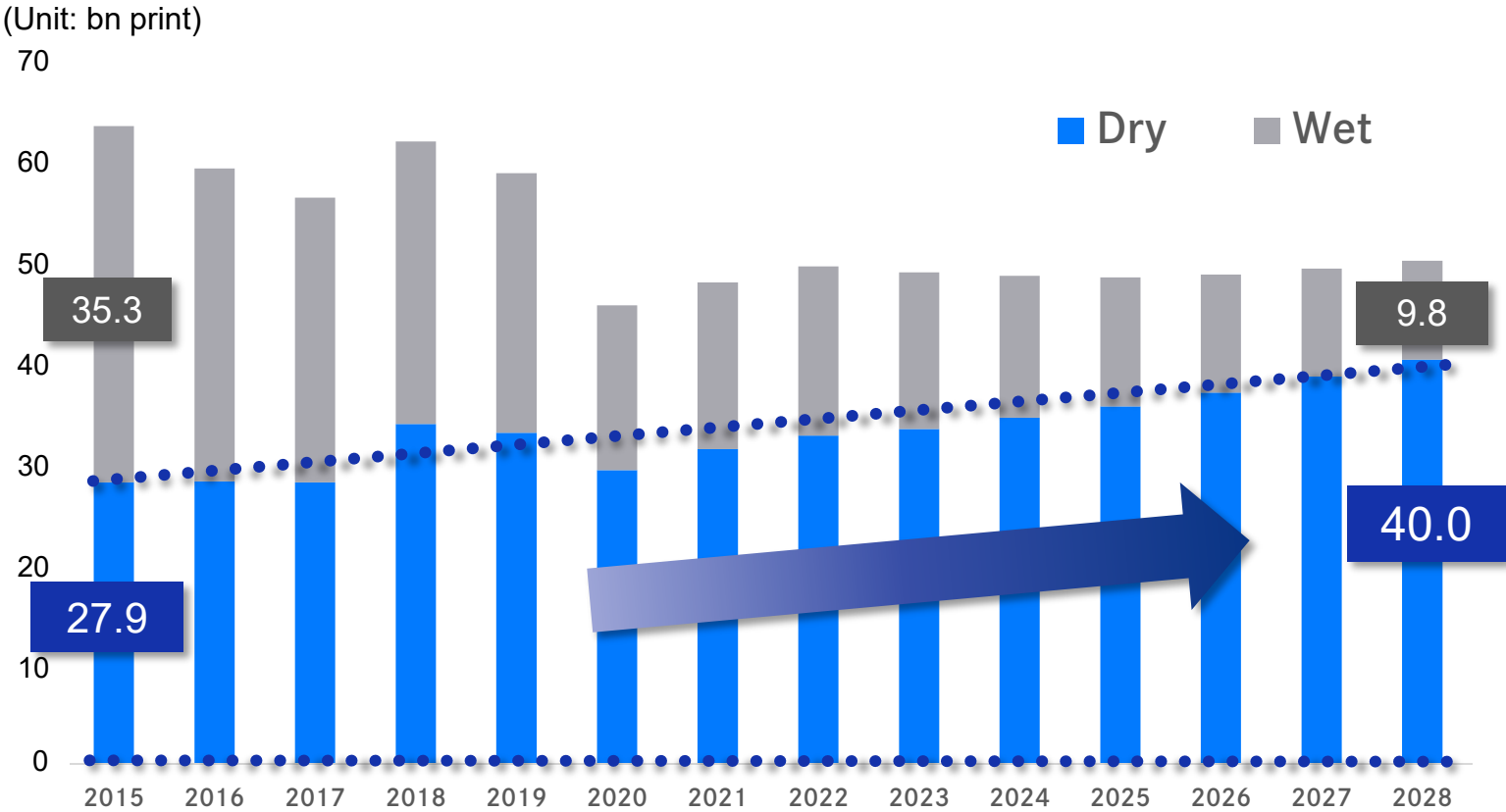
Retailers
Number of DNP printers shipped
Cumulative total of
680,000 units



Consumers
Annual shipments of media
(4x6" equivalent)
Approx. **4.8 billion**/ year

Number of photo prints worldwide (4x6" equivalent)

The global photo print market is declining, including silver halide method, while dry processes such as dye-sublimation and inkjet are on the rise. Dye-sublimation offers advantages for small-batch and on-demand printing.

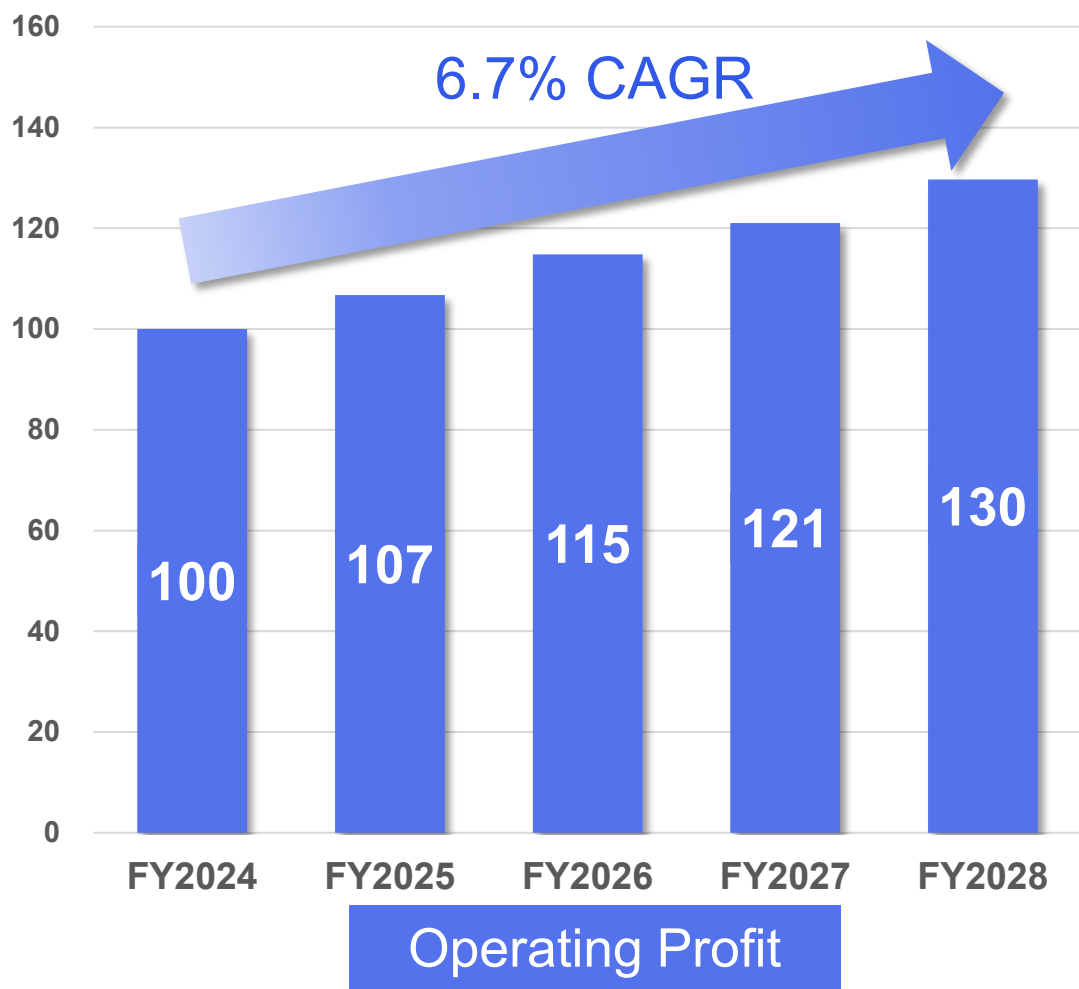
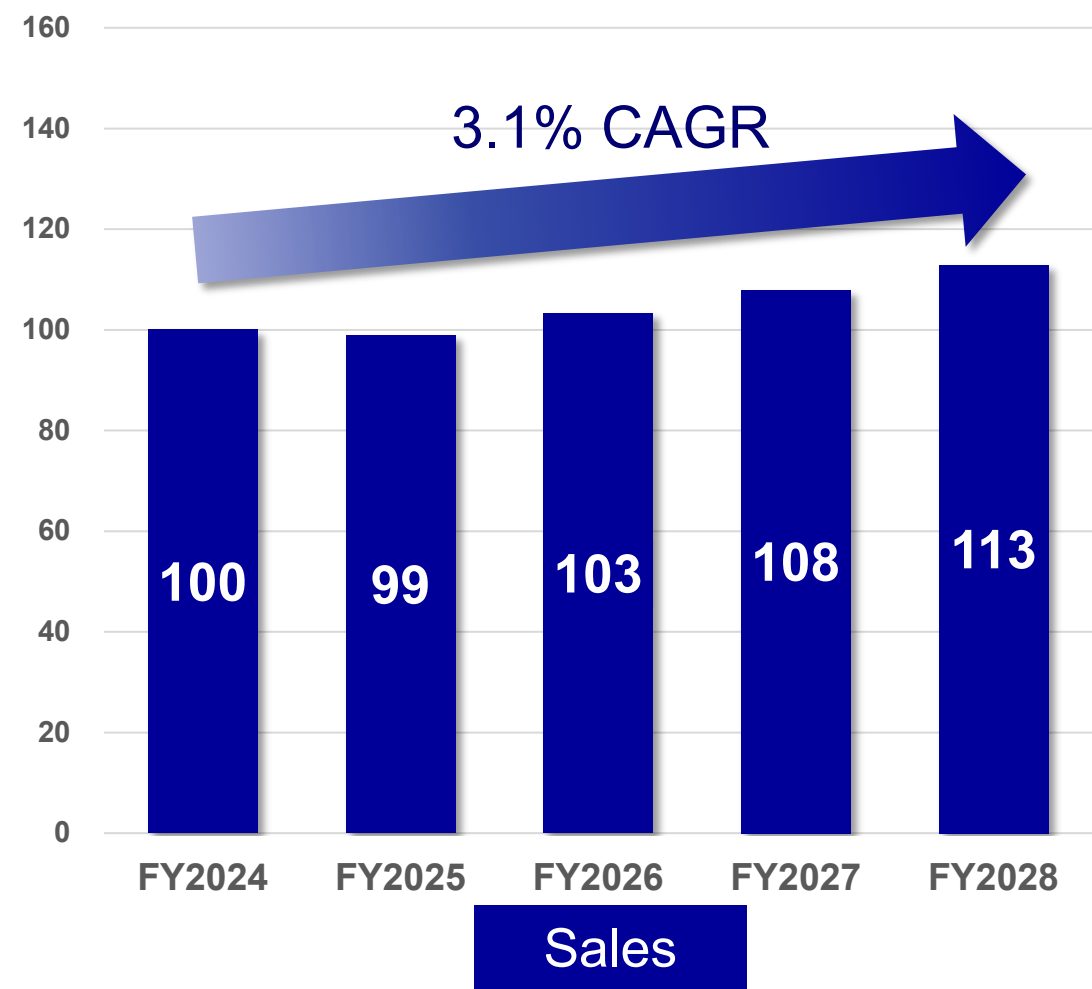


From Schoeller, Robinson Report. Forecasts from 2022 and beyond.



Photo Imaging Growth Potential

DNP

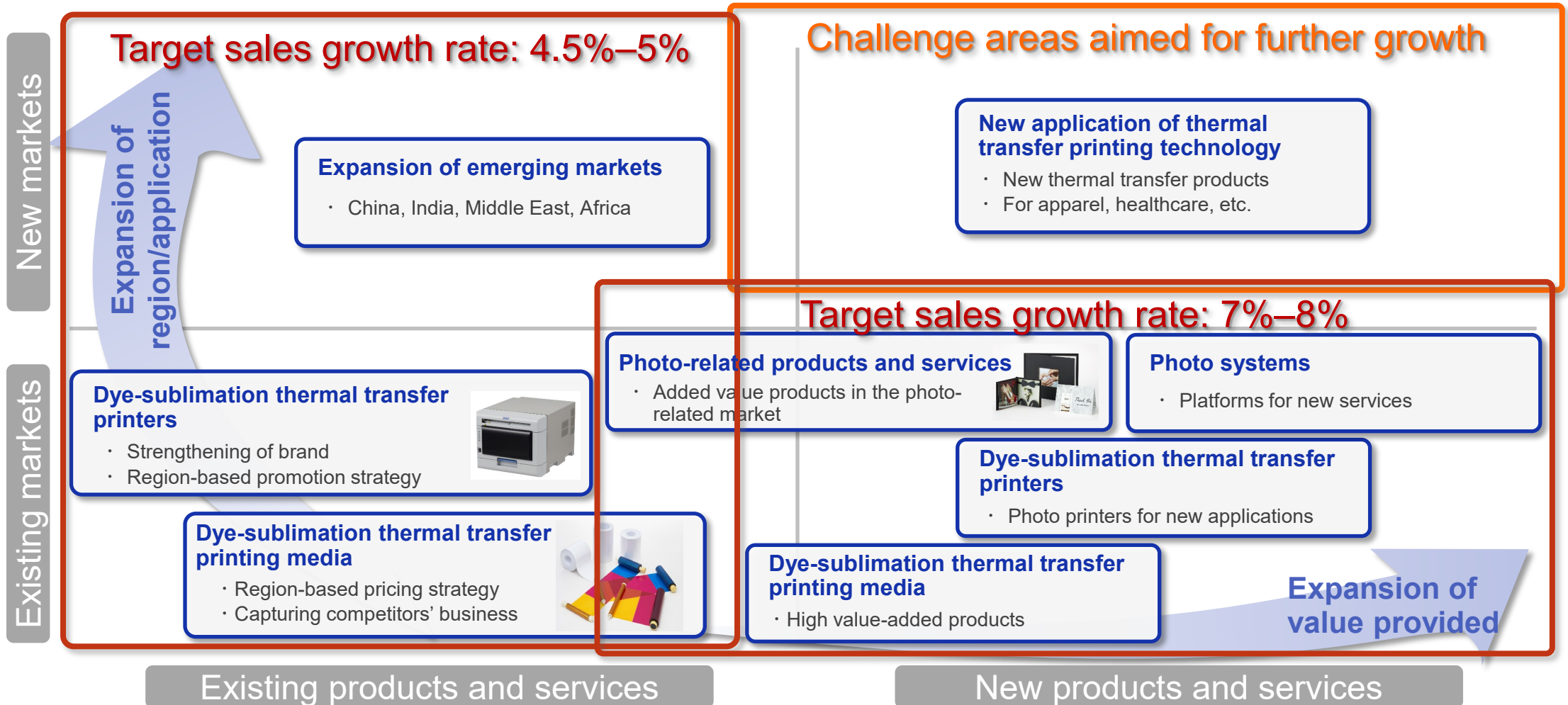


Growth potential indexed to 2024 as 100

Future Growth Strategy

DNP

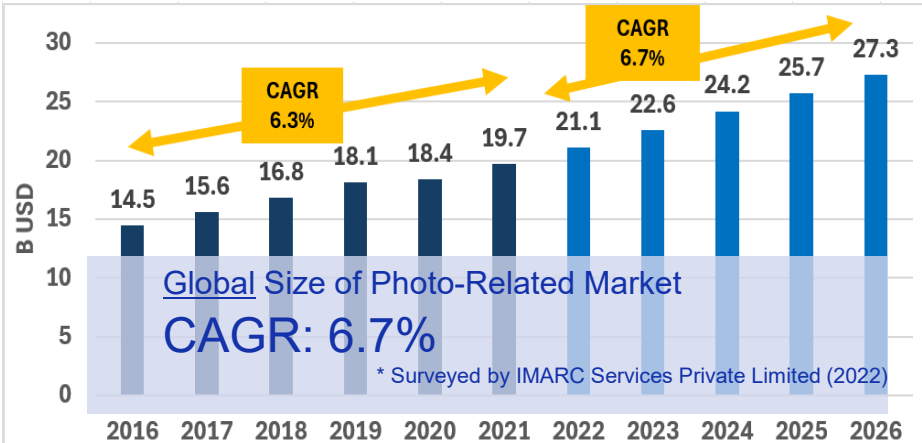
Bring smiles & peace of mind across the world by realizing various ideas.



Response to the Growing Photo-Related Market

DNP

Unit: US\$ bn



With the rise of smartphones, the number of photos taken globally is increasing. There is a growing demand for preserving special moments and memories in photo books and calendars.



The introduction of the new printer will enhance our product lineup with high-quality, value-added photos.

World's lightest 8-inch double-sided printer in class DP-DS820DX (launched in June 2024)



Providing consumers with a range of photo print ideas in one compact unit through the features of high-quality dye-sublimation thermal transfer printers, now enhanced with new functions.

Large double-sided print



Crease mechanism



Vertical cutter



Delivering your favorite photos to the world in various formats

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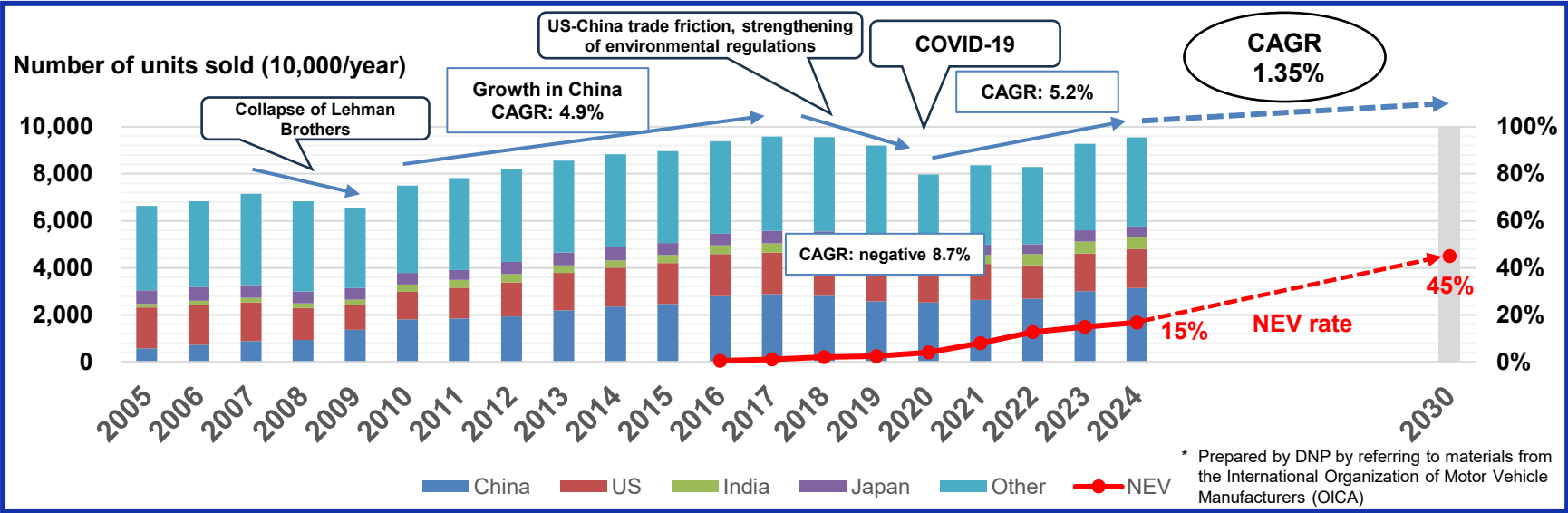
DNP

Market Overview

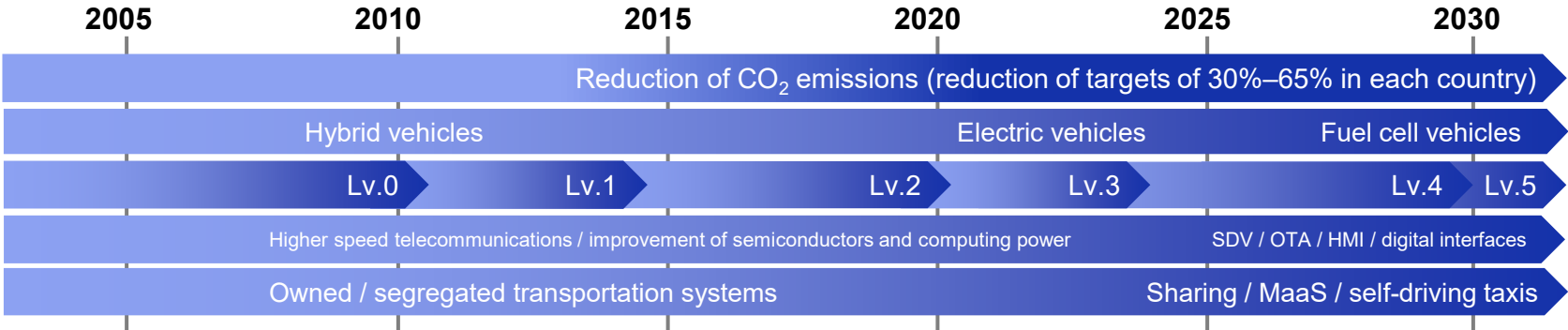


The automotive market is facing a *once-in-a-century transformation* → A chance for DNP to take a leap forward

Number of automobiles sold worldwide



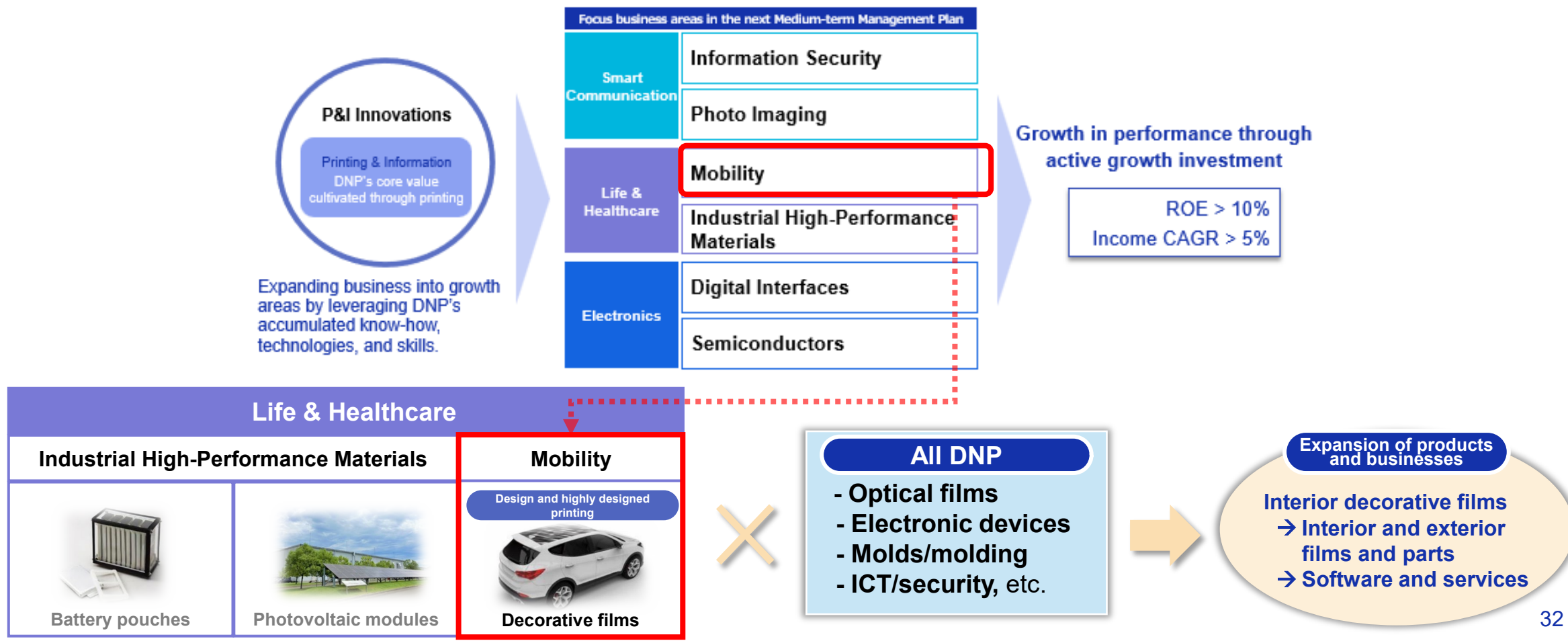
Keywords for transformation	Environment
	Electrification/NEV
	Self driving
	Telecommunications and software
	Services



Business Overview



Mobility is a focus business. We will expand our products and businesses by leveraging the strengths of All DNP (including the three business segments and collaboration with external partners) with decorative films as our main product.



Business Strategy: Development of Decorative Films

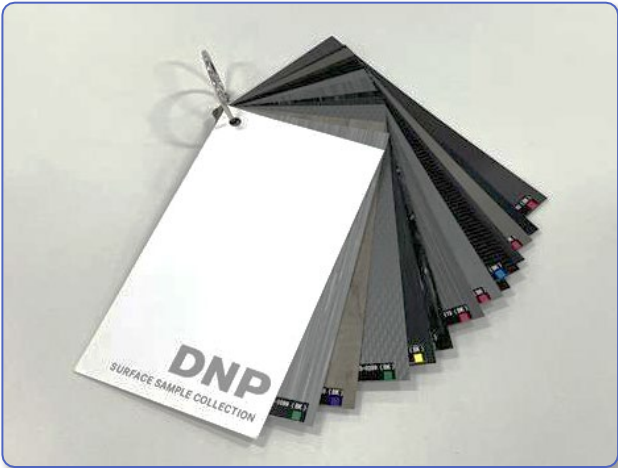
DNP

Responding to market changes by leveraging the strengths of All DNP

Main Developments (New Interior and Exterior Products)

Interior film

Design Highly designed printing



Market trends

Environmentally friendly

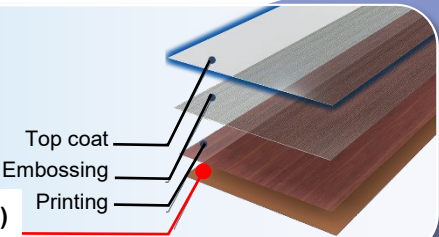
Digital interfaces and HMI

Market share
Aim to grow from 20% now to 50% or more

Monomaterial Recyclable

- Polypropylene (PP) substrate

Film substrate (from ABS to PP)



Exterior film

- Two-tone roof (See next page for details)
- Paint substitute
- Lighting



Light-transmitting film

- Seamless design
- High-end HMI

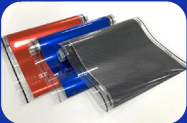


Reference)
Decorative parts process

DNP



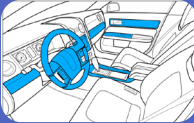
Design



Decorative films



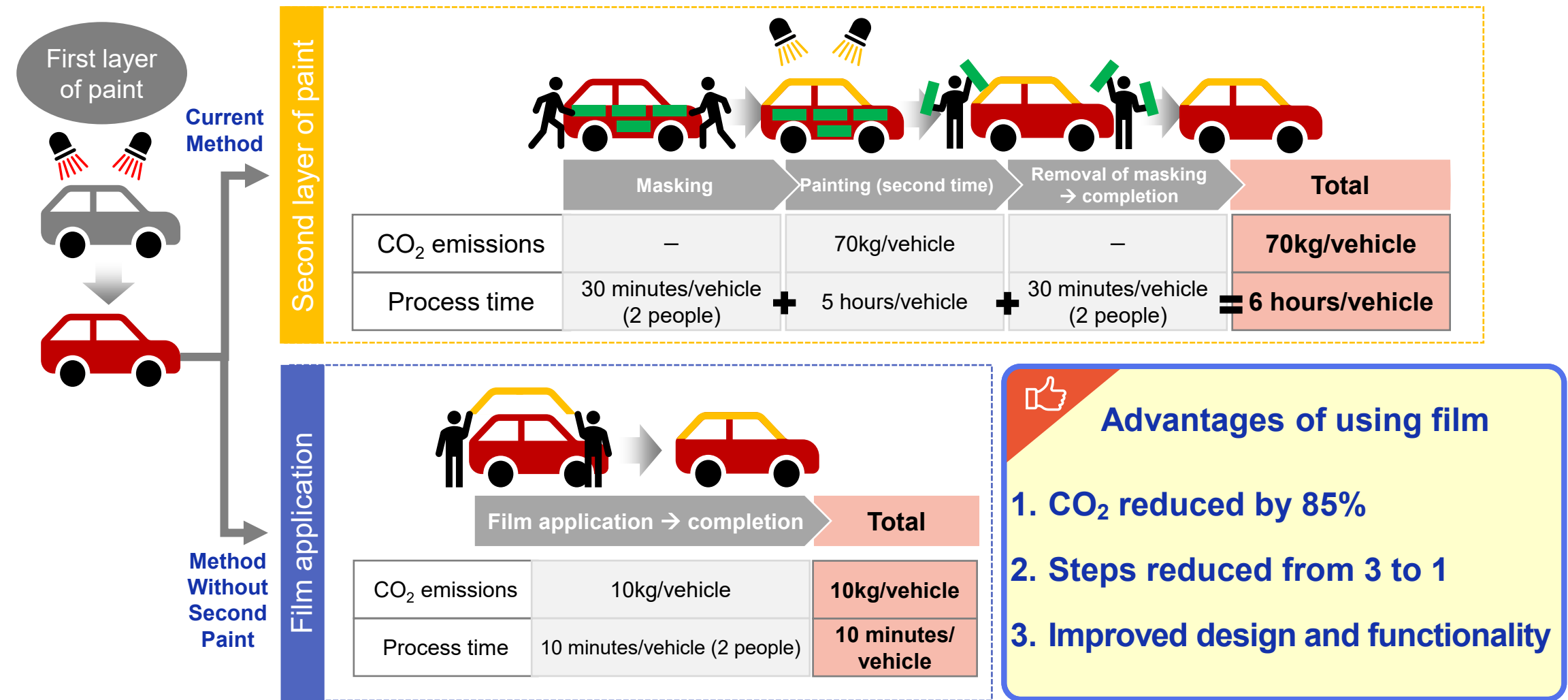
Molding



Assembly

Reference) Advantages of Exterior Decorative Film: Example of Two-Tone Roof

DNP



* CO₂ emissions and process time researched by DNP

Business Strategy: Expansion to Molded Parts



Responding to market changes by leveraging the strengths of All DNP

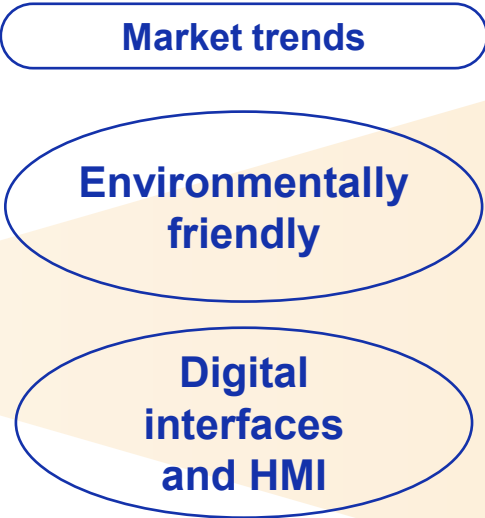
DNP Tamura Plastic



DNP Hikari Kinzoku



HIKARI METAL INDUSTRY CO.,LTD. (joined the Group in February 2025)
→ See next page for details



Main Developments (New Molded Part Products)

Utilization of recycled materials and environmentally friendly materials





Waste plastic Pellets

Market share: Aim to grow from 50% now to 70% or more

High-end HMI parts



Market share: Aim to grow from 30% now to 50% or more

Reference) Decorative parts process



Reference) Introduction of DNP Hikari Kinzoku



Strengths rooted in advanced technology for decorative molding and expertise in manufacturing.

DNP Hikari Kinzoku

- Business details:
Manufacturing interior parts such as molded automotive products and decorative components using specialized printing for industrial equipment.
- Production sites:
Head office plant, Kasadera Plant, Otaka Plant, China Plant
- Number of employees: 263 (as of July 2024)

Molded automotive parts



Manufacturing sites

Domestic sites
Headquarter + 3 plants



Chinese site
1 plant

Danyang Plant



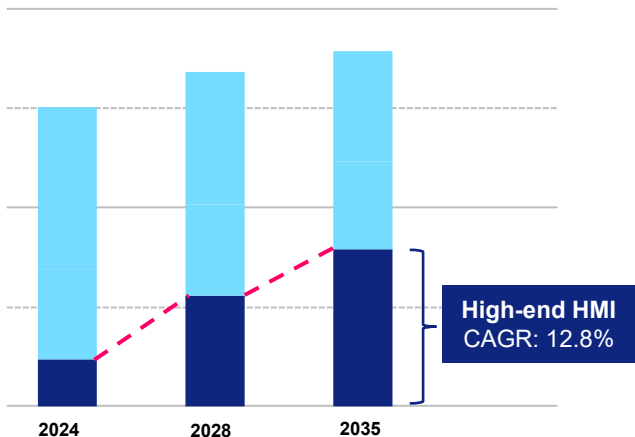
Switch panels, data stickers, etc. for industrial/medical/residential equipment



There are synergies with DNP's Living Spaces business

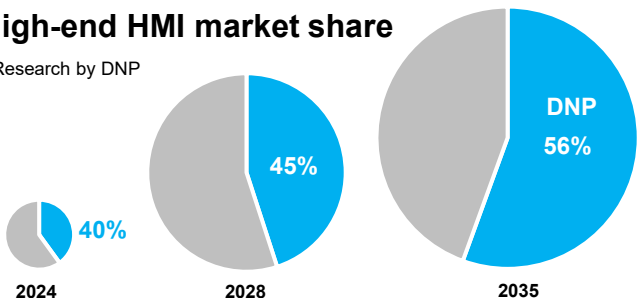
Automotive switch and display market

* Research by DNP (sales basis)



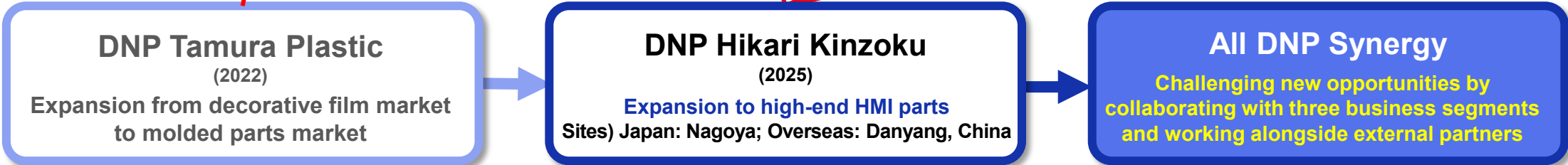
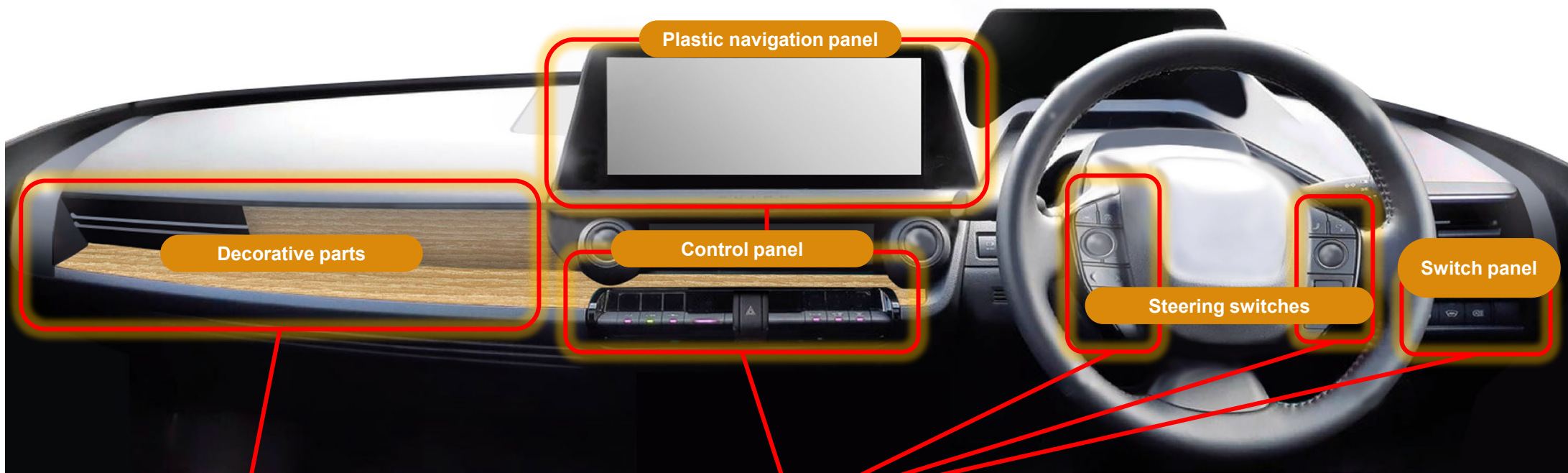
High-end HMI market share

* Research by DNP



Reference) Expansion to Molded Parts

We are expanding our business into the high-end HMI area with the acquisition of HIKARI METAL INDUSTRY.



Business Strategy: Challenging New Opportunities



Entry into significantly changing and growing areas (software, services, electrification, self driving, etc.)

Software

DNP's ICT and security technology and collaboration with partners



August 2024: Business and capital alliance

Entering the market for in-vehicle device software and connected infrastructure development

Electrification

DNP's electronics technology

Wireless power supply coil
(while parked and while driving)



Smart society connecting people and society

Services (MaaS)

DNP's business network and collaboration with partners



Ryukyu Nissan Motor Co., Ltd.
June 2025: Franchise agreement

Participation in the car sharing business

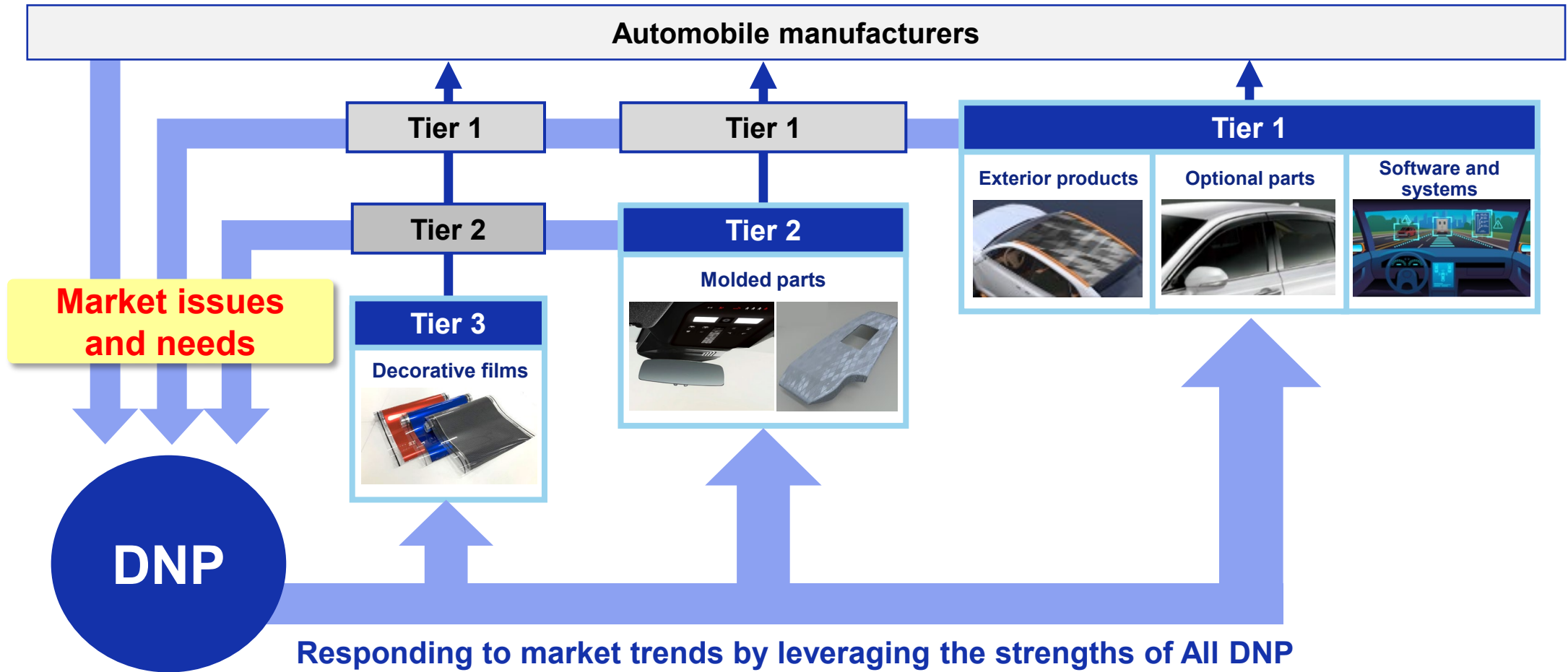
Self driving

Currently considering entry into the self driving systems area

Business Strategy: Transformation of Business Model

DNP

We will develop a thorough understanding of market issues and needs, establishing optimal positions for each product to deliver high-value products and services.



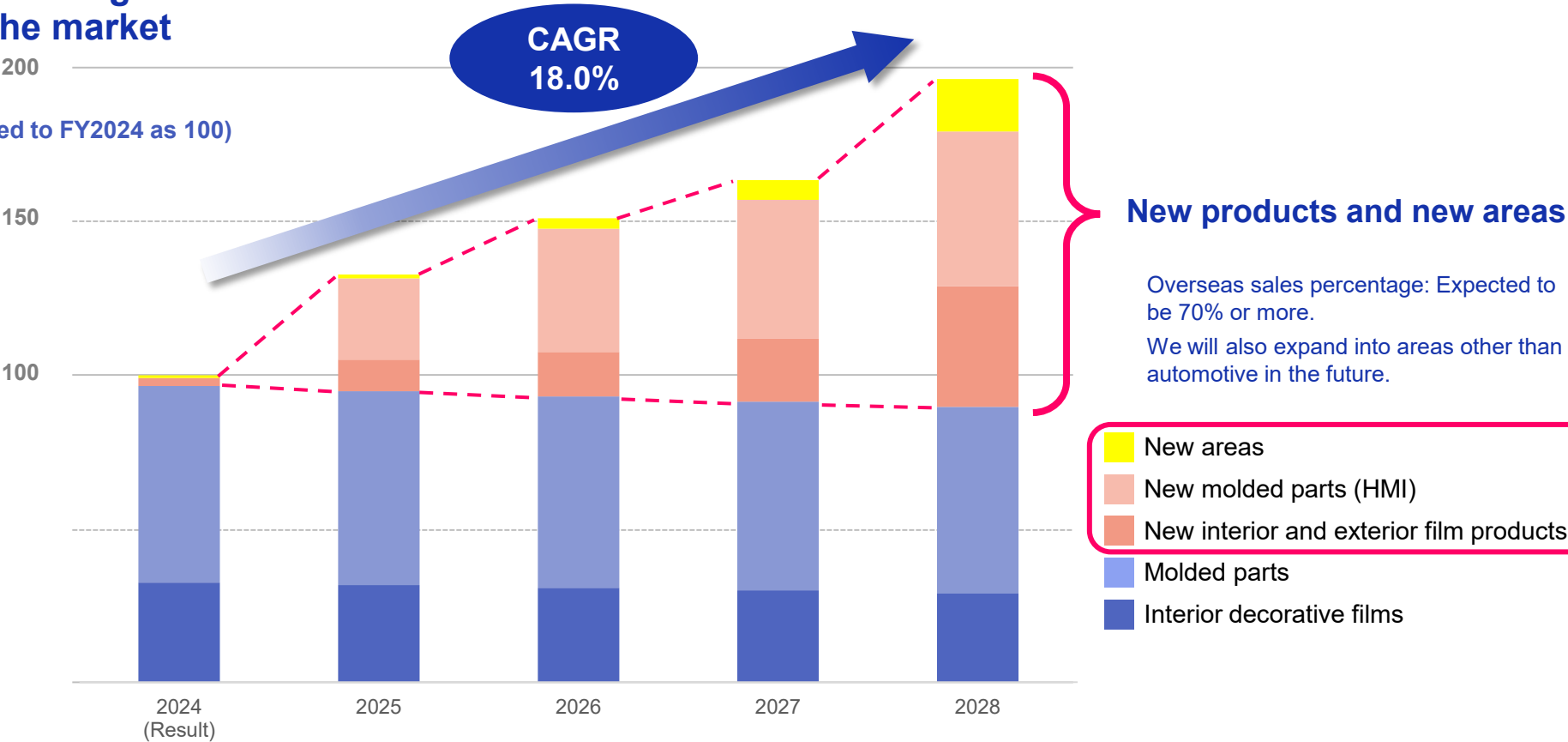
Business Forecast

We aim to grow our business by increasing the market share of existing products, broadening their applications, and exploring new areas. Additionally, we will actively seek capital investments and pursue mergers and acquisitions to support this growth.

Aiming to achieve significant growth by capturing trends in the market

Sales

(Comparison indexed to FY2024 as 100)



DNP Group IR-Day 2025



(1) Progress and evaluation of the mid-term management plan, looking ahead

President

Yoshinari Kitajima

(2) Approach to Sustainable Growth

Senior Managing Director

Toru Miyake

(3) Business strategy

Information Security

Senior Corporate Officer

Yoshiki Numano

Photo Imaging

Senior Corporate Officer

Kazuo Murakami

Mobility

Senior Corporate Officer

Go Miyazaki

**Industrial High-Performance Materials
Battery Pouches**

Corporate Officer

Ariyoshi Matsumura

Semiconductors
Photomasks for Semiconductors, Glass Core

Senior Corporate Officer

Minoru Nakanishi

Digital Interfaces
Optical Films, Metal Masks

Corporate Officer

Nobuyuki Tomizawa

Battery Pouches

DNP

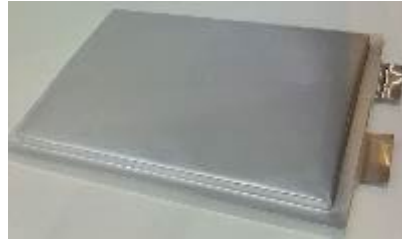
Business Overview

DNP

Product Image

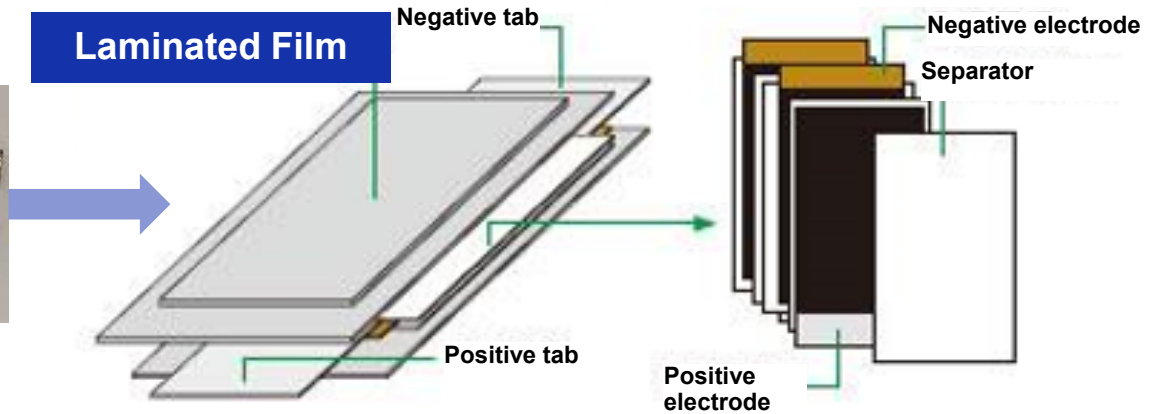


Battery cell



Laminated cell structure

Laminated Film



Product Lineup



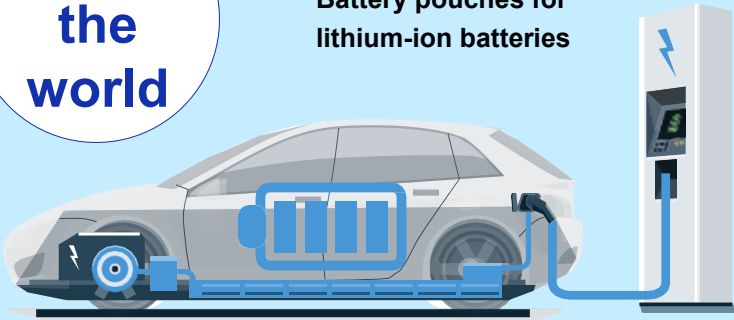
Features required for pouches

- **High sealing and airtightness** to prevent electrolyte leakage.
- **High water vapor barrier property** to prevent water from entering from outside.
- **High moldability** to increase battery capacity.
- **High insulation** to support high voltage and large batteries.
- **Heat resistance and stability at high temperatures** to ensure stable operation in harsh environments.


Products Boasting Leading Share

No.1 in the world


Battery pouches for lithium-ion batteries





Optical films for displays




(Viewing angle control film)




Dye-sublimation printing media



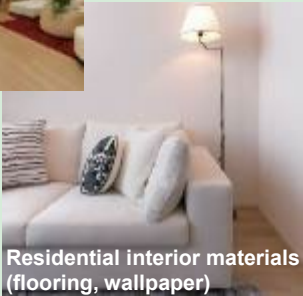
No.1 in Japan




Contactless smart card
(Top share in Japan for financial smart cards, etc.)



Residential interior materials
(flooring, wallpaper)



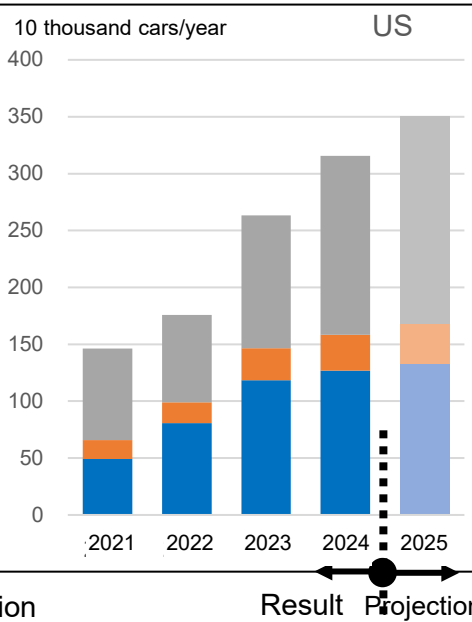
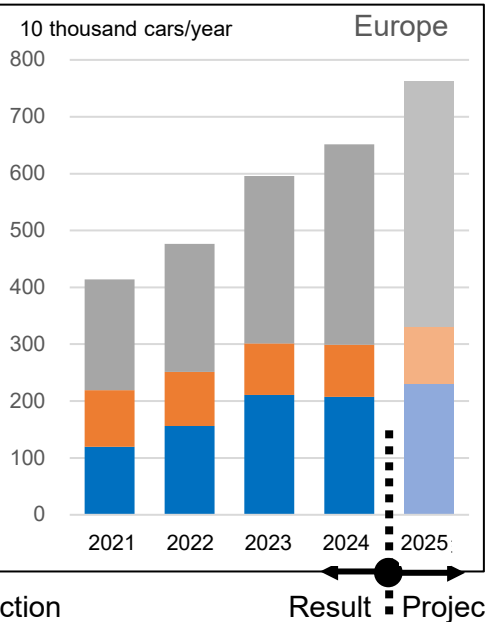
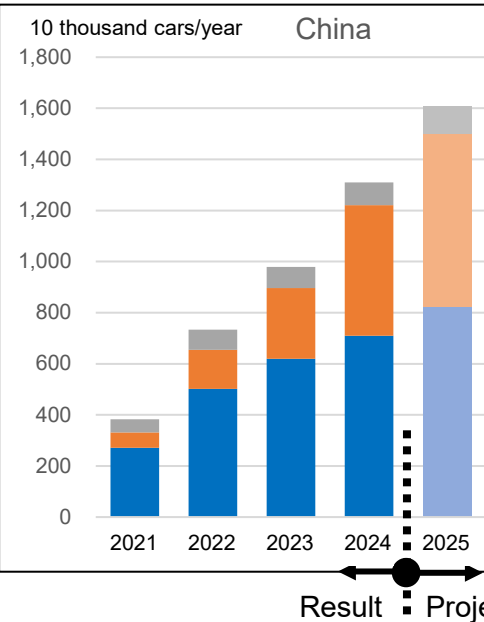
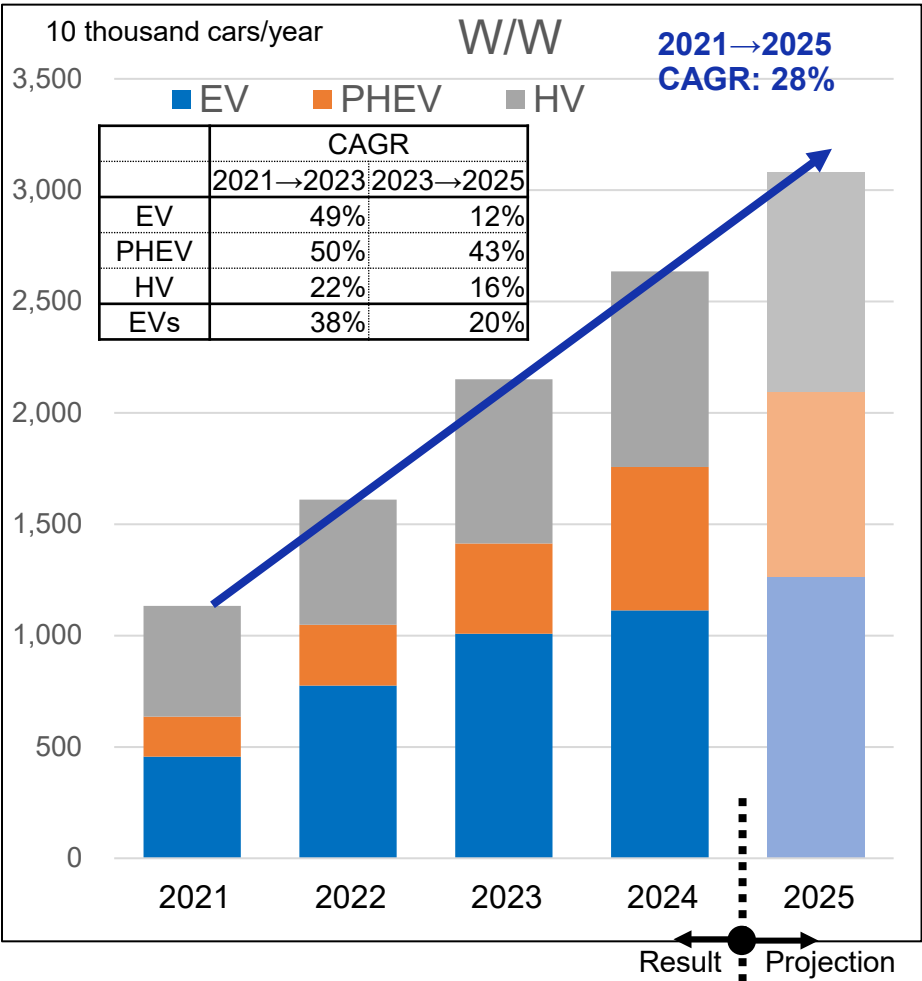


Aseptic filling system for beverages in PET bottles

Electric Vehicle (EV, PHEV, HV) Market Trends: Sales Results

DNP

Sales of new electric vehicles are beginning to slow down. China is currently the main driver of growth in EVs and PHEVs. In Europe and the US, sales of hybrid vehicles are rising significantly, but the growth of EV and PHEV sales is only marginal.



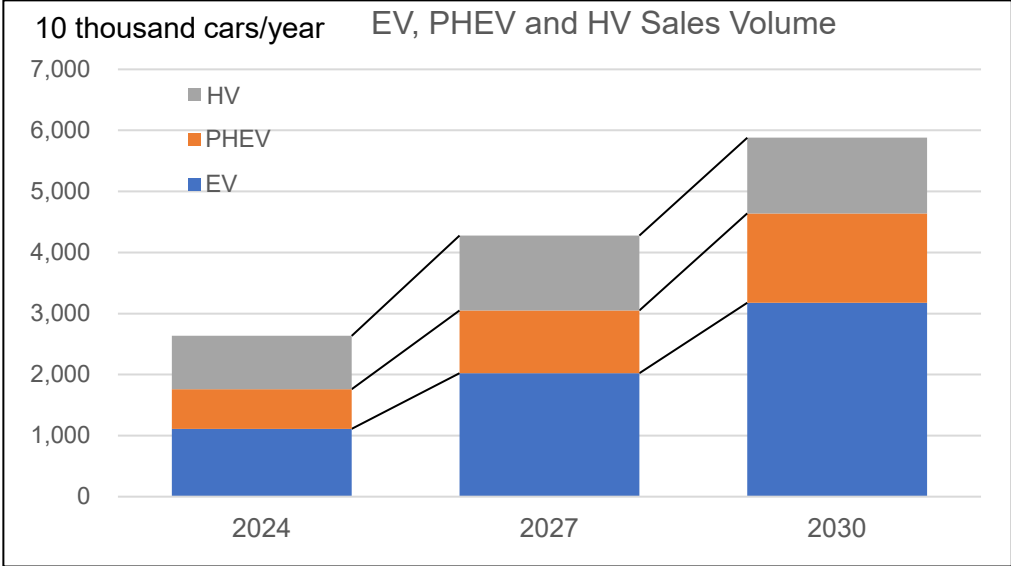
	CAGR	
	2021→2023	2023→2025
EV	51%	16%
PHEV	115%	60%
HV	27%	11%
EVs	60%	30%

	CAGR	
	2021→2023	2023→2025
EV	33%	5%
PHEV	-5%	5%
HV	18%	21%
EVs	20%	13%

	CAGR	
	2021→2023	2023→2025
EV	55%	6%
PHEV	31%	12%
HV	20%	25%
EVs	34%	15%

Electric Vehicle (EV, PHEV, HV) Market Trends: Forecast

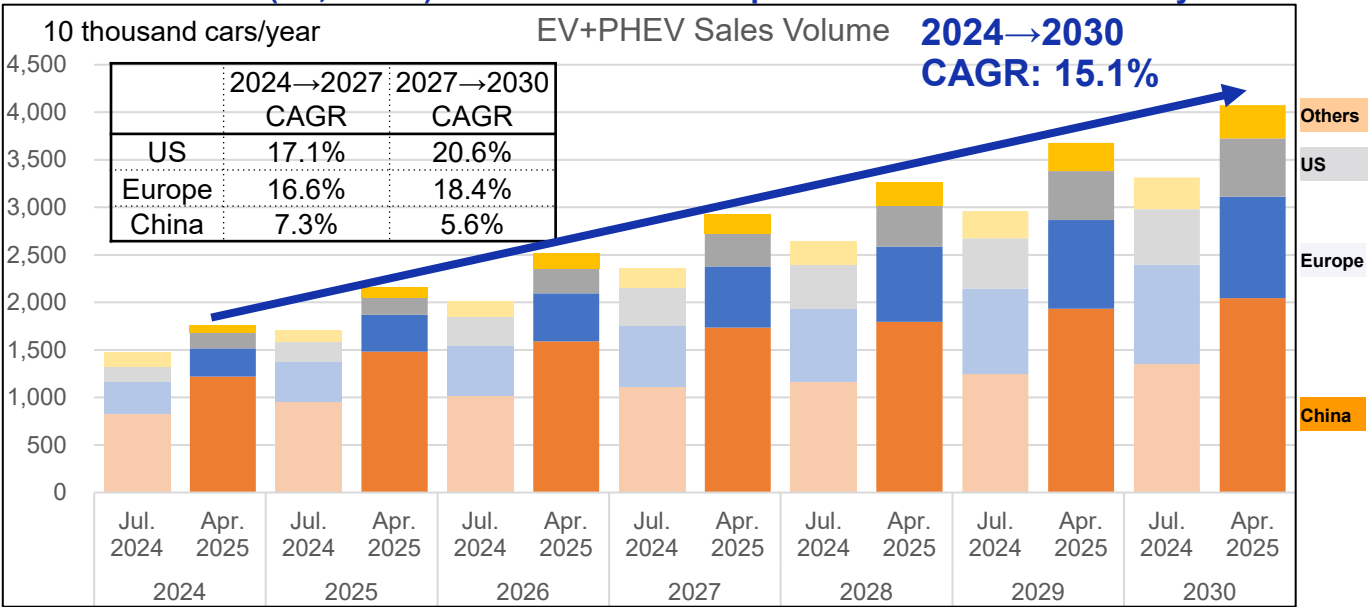
DNP



	2027→2027 CAGR	2027→2030 CAGR
EV	22%	16%
PHEV	16%	13%
HV	12%	1%
EVs	18%	11%

- In the **short term**, there is a shift away from the previous emphasis on EVs toward a **broader diversification** that includes EVs, PHEVs, and HVs.
- From 2027 onward, it is anticipated that **EVs and PHEVs will lead the market** as infrastructure improves, the variety of vehicle types expands, and prices decrease.

Electric Vehicle (EV, PHEV) Market Trends: Comparison with Previous IR-Day



Source: DNP's forecasts based on Global Data, MarkLines/national policies, automaker press releases, etc.

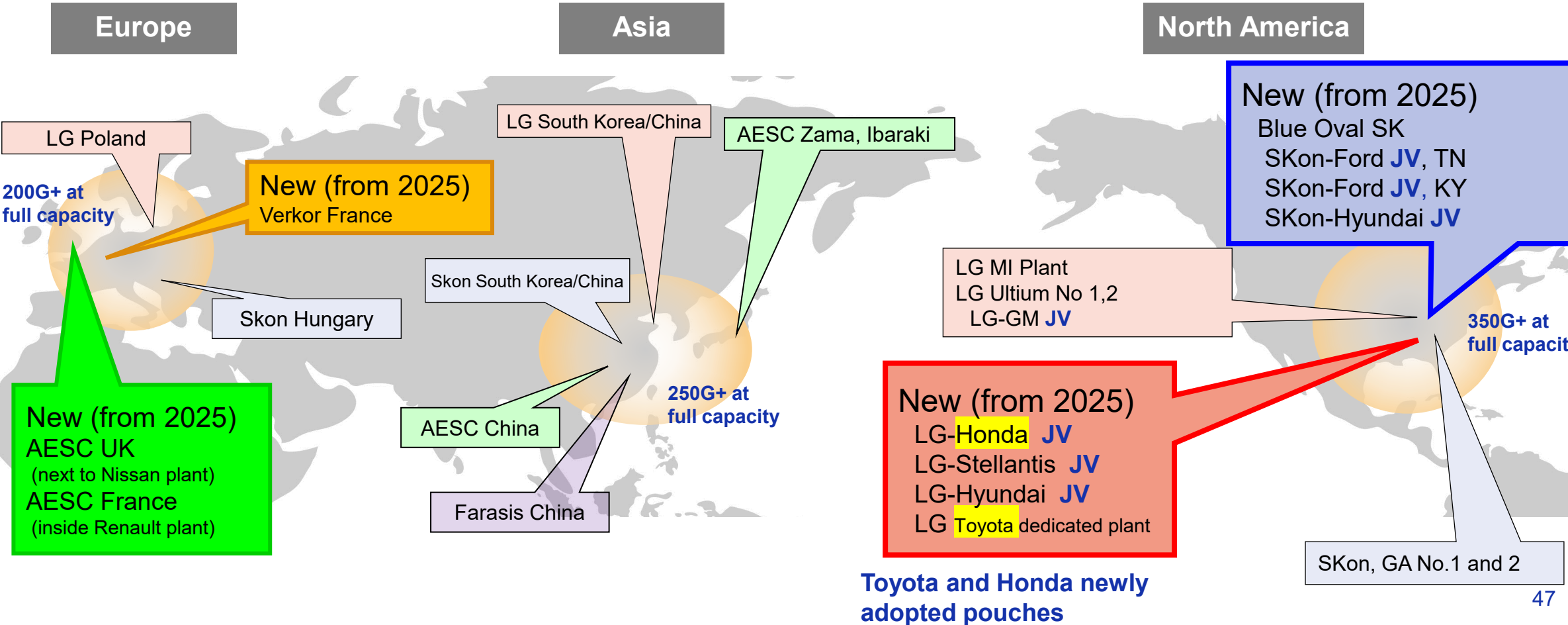
China is leading the electric vehicle market. It is expected that electric vehicles will become more widespread in Europe and the US from 2027 onwards.

→ **In the medium term, the trend toward electrification of automobiles (EVs and PHEVs) is expected to continue.**

- The postponement of CO2 regulations in Europe and the reduction or elimination of IRA subsidies in the US will have a short-term dampening effect on economic growth.
- However, we expect that CO2 regulations in Europe will become even stricter in the future, making the adoption of EVs and PHEVs essential.
- In the medium term, we anticipate an increase in the adoption of PHEVs and EVs due to the development of infrastructure, the introduction of new vehicle models, and reductions in prices.

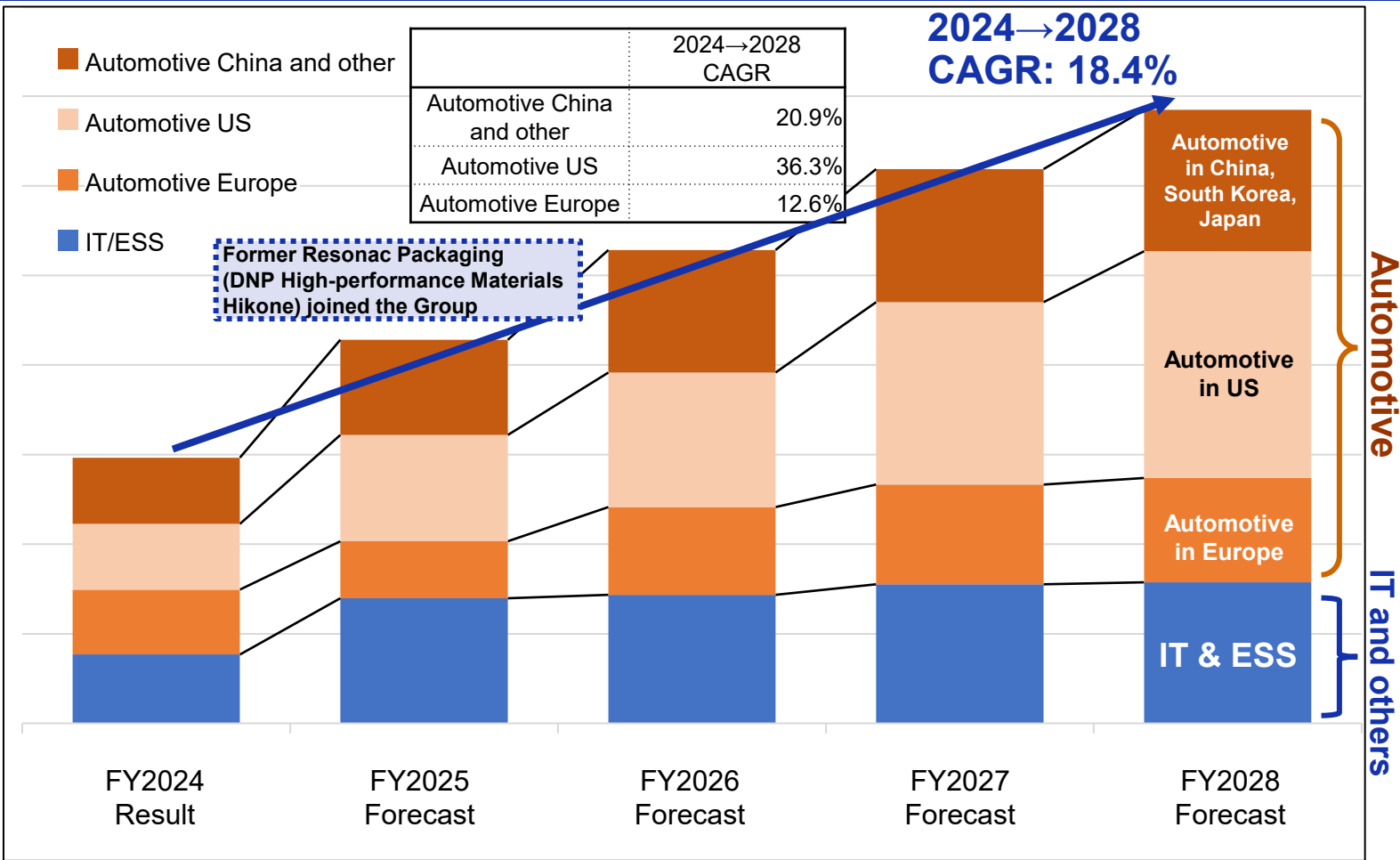
Major Battery Pouch Plants

In addition to the existing factories, new battery pouch plants are set to start operations in Europe and the United States between 2025 and 2026. Many of these upcoming plants will be joint ventures or contract-based projects involving partnerships between battery manufacturers and automobile manufacturers, and stable demand is anticipated.



Business Roadmap

Starting in 2025, we will expand our product range in IT-related and ESS areas by incorporating the Resonac Package (DNP High-Performance Materials Hikone). From 2025 and 2026 onwards, we anticipate that new battery plants will begin full-scale operations, resulting in a significant increase in sales to Europe and the US.



FY2024

- IT: Increase in volume due to demand from thin, high-capacity models.
- Automotive: Demand was sluggish in the first half due to excess inventory. However, **inventory depletion improved** in the second half.

FY2025

- IT: Increase due to acquisition of Resonac Package.
- Automotive: Market is recovering. **New battery manufacturer plants will startup.**

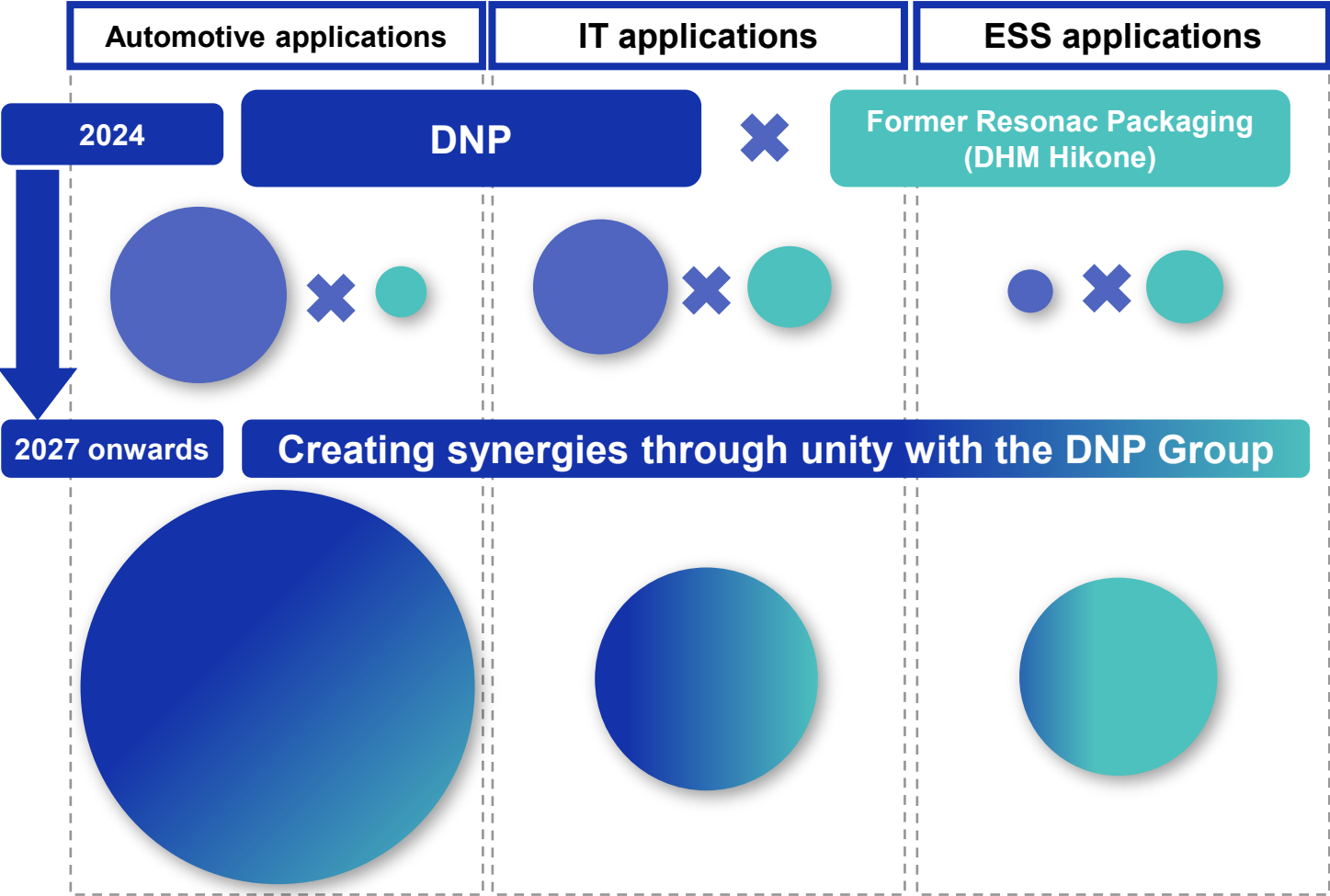
From FY2026

- IT: Steady growth.
- Automotive: **Full-scale operation of new plants.** Significant growth centered on the US.

Expansion of product lineup and synergies

DNP

We believe that our product range will grow through complementary business areas, leading to overall expansion in sectors such as automotive, IT, and ESS. Our strong patents and technologies will establish a solid barrier to entry, giving us a competitive advantage. This will enable us to compete effectively against alternative methods, such as prismatic.



DNP

Has top share in automotive and high-end IT products.

Former Resonac Packaging (DHM Hikone)

Strong in ESS and holds share in IT (e-cigarettes and middle-end products).

- The two companies hold a combined total of **over 800 patents**. → This will discourage other companies from entering the market.
- The two companies will combine their manufacturing know-how, technology, and development capabilities. → This will ensure a competitive advantage over other companies.

Automotive: Maintain high share.

IT: Expanding into products other than IT devices such as smartphones.

ESS: Build strengths through technological integration and increase volume in line with market expansion.

DNP Group IR-Day 2025



(1) Progress and evaluation of the mid-term management plan, looking ahead

President

Yoshinari Kitajima

(2) Approach to Sustainable Growth

Senior Managing Director

Toru Miyake

(3) Business strategy

Information Security

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Battery Pouches

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Semiconductors
Photomasks for Semiconductors, Glass Core

Senior Corporate Officer

Minoru Nakanishi

Digital Interfaces
Optical Films, Metal Masks

Corporate Officer

Nobuyuki Tomizawa

Photomasks for Semiconductors

DNP

Semiconductor Business: Photomasks (Semiconductor Front-end Processes)

DNP

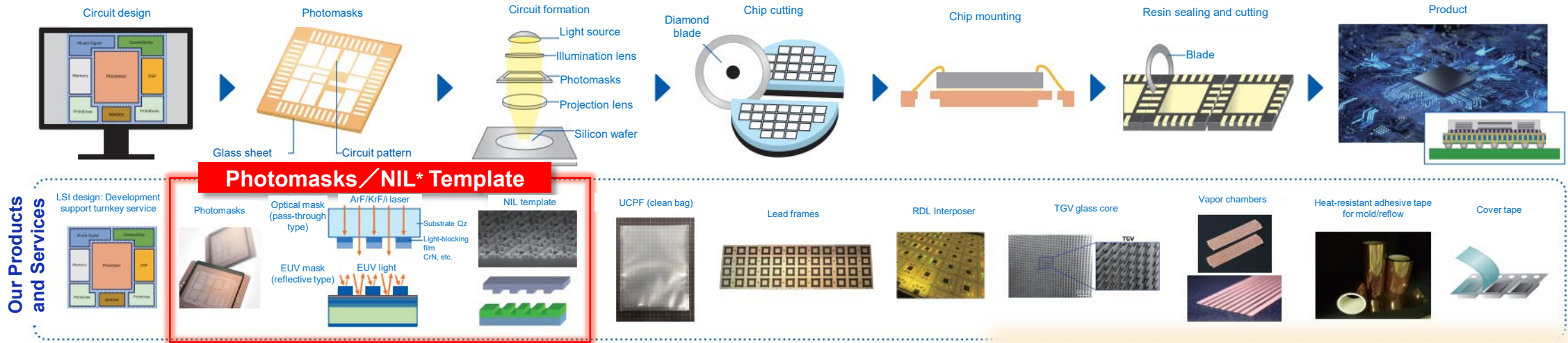
Photomasks for semiconductors is our core product in our semiconductor business, a focus business area of DNP.

DNP's Semiconductor-related Products and Services

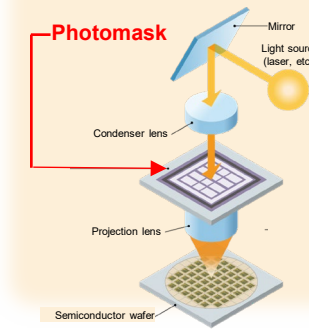
* NIL: Nanoimprint Lithography

Front-end processes

Back-end processes



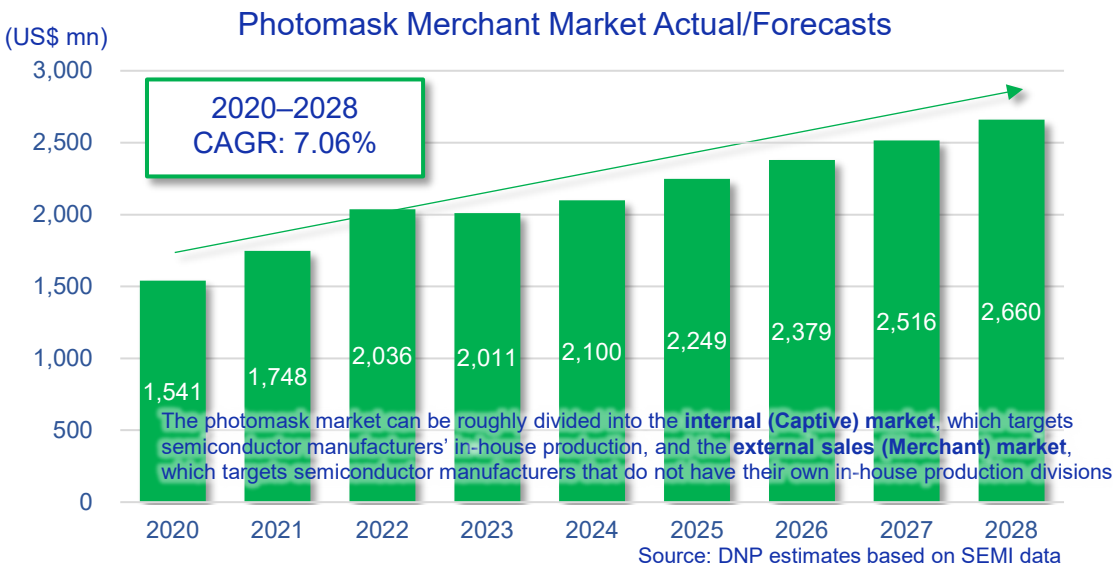
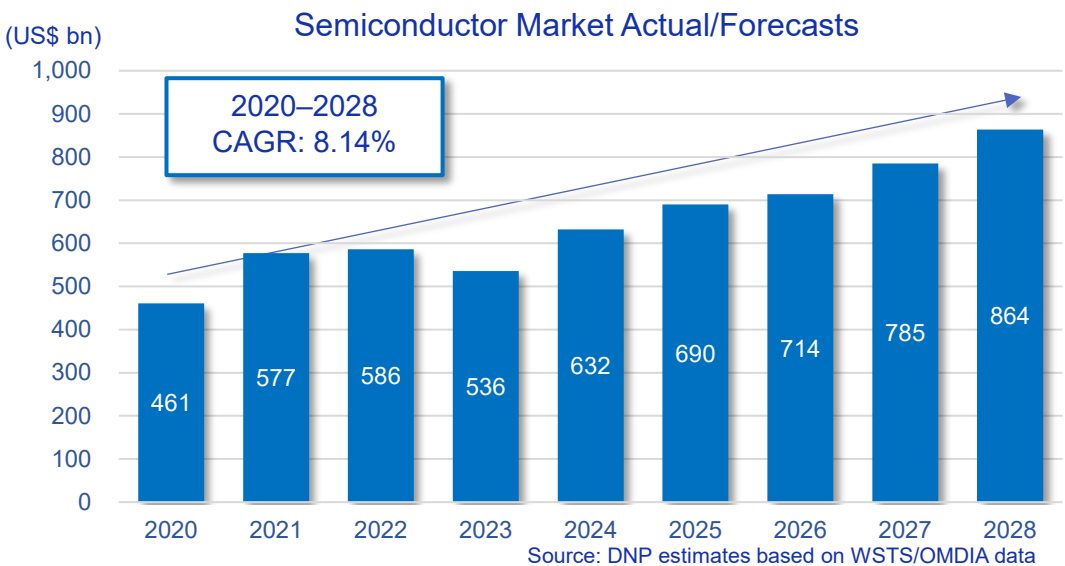
DNP core technologies and photomasks: "Why is a printing company handling photomasks?"



What is a photomask?

- Used to transfer circuits onto semiconductor wafers
- A structure with a precise circuit pattern formed on the glass surface, it is an important component **essential for semiconductor manufacturing.**

The photomask merchant market is expected to grow steadily alongside the expansion of the semiconductor market.



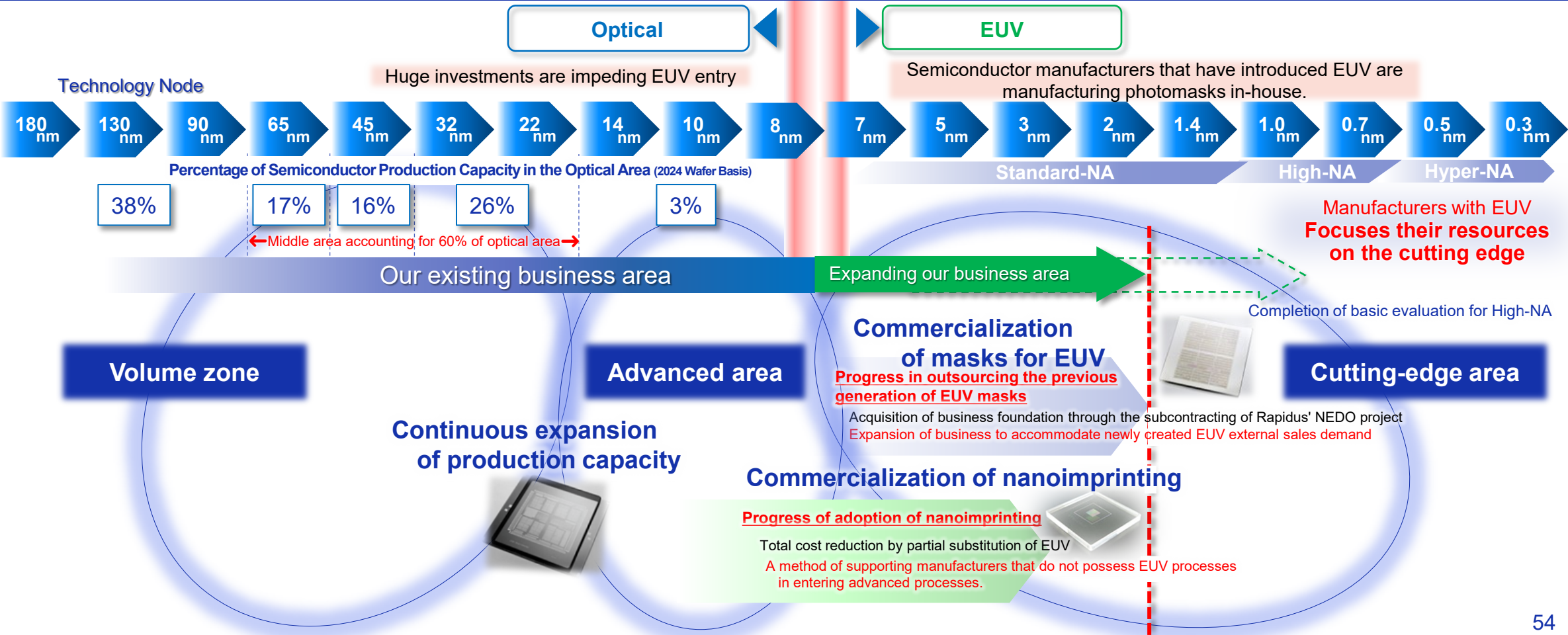
- The semiconductor market is forecast to expand at a CAGR of 8.14% from 2020 to 2028, driven by growth in AI-related technologies and automotive applications.
- The photomask merchant market, which is one of DNP's business areas, is also expected to grow steadily in line with the expansion of the semiconductor market.
- While AI-related businesses are currently performing well, businesses related to consumer and industrial equipment are facing sluggish performance. Overall, the market has declined compared to the previous quarter. Additionally, U.S. tariff policies are anticipated to influence the supply chain, adding to the prevailing uncertainty.
- Despite the increasing uncertainty in the semiconductor market, the current photomask merchant market remains strong, primarily due to ongoing demand in product development.
- The semiconductor market is affected by protectionism and geopolitical conflicts but is expected to continue growing in the medium to long term, driven by AI and EV-related demand.

➤ We plan to expand our business into cutting-edge areas currently dominated by in-house photomasks.

Business Strategy

DNP

We aim to achieve sustainable business growth by expanding into cutting-edge areas that are emerging as new markets for external photomask manufacturers. Additionally, we will strengthen our manufacturing capabilities in rapidly growing advanced areas and high-volume areas to comprehensively cover the semiconductor market.



DNP's Strengths / Business Growth Story

DNP

We believe that strong partnerships and ongoing technological development are the keys to our competitiveness, and we will further enhance these areas to expand our business in the semiconductor market.

We believe that our photomask business is **based on strong partnerships and continuous technological development, which are the sources of our competitiveness.**

Note: Partnerships with semiconductor manufacturers, equipment manufacturers, material manufacturers, research institutes, etc.

Strong relationships based on partnerships allows

- **Flexibility to respond quickly to technological innovations and market trends**
- Creation of **new value** through joint development

Examples of results of partnerships

- Nanoimprinting development : **KIOXIA, Canon**
- EUV mask development : **imec, Rapidus**
- Timely response to the rapidly growing Chinese market
- Combination of semiconductor technology and photomask technology :
- Joint development with other material and equipment manufacturers



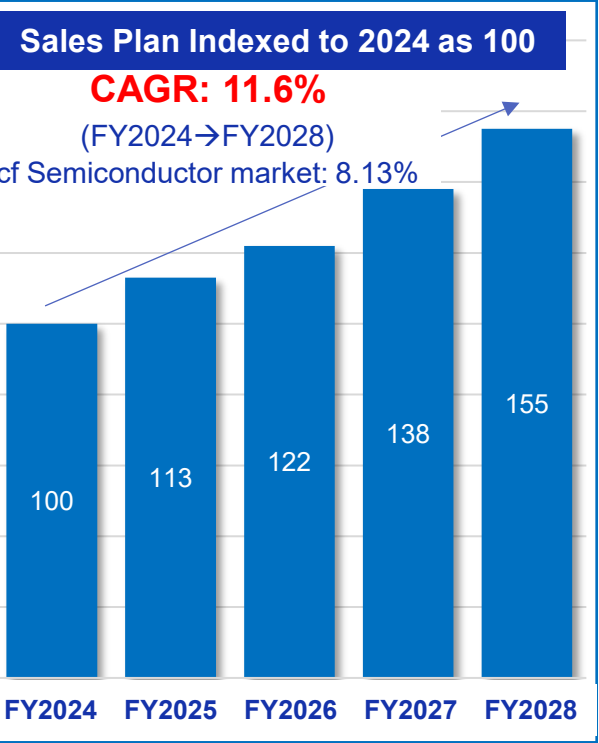
Note: EUV masks and nanoimprinting are both products of more than a decade of continuous development

: **PDMC/X**
ST Microelectronics
Japanese semiconductor companies

Semiconductor Photomask Sales Plan



We will continue to actively invest in this core product of our semiconductor-related business and plan to achieve growth that exceeds the semiconductor market.



FY2025 Progress (comparing with previous IR-Day report)

Sales vs. FY2022
15% increase expected as planned

Investment from FY2023 to FY2025
Expected to implement ¥20 billion as planned
Expected to be 10% or overall sales as planned

Cutting-edge area
Masks for EUV
- Start of development of 2nm generation → resolution successful
- Start of shipment of masks for EUV with the launch of a pilot line at Rapidus
- Increase in inquiries from major manufacturers


Nanoimprinting
Increase in inquiries from various companies → start of evaluation work

Advanced to volume zone
Expected to secure 120% production capacity as planned (compared to FY2022)

Growth Drivers

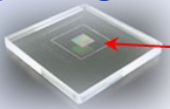
Cutting-edge area FY2028 + ¥10 billion (vs. FY2024)

Commercialization of masks for EUV
- Start of full-scale mass production in 2027



Photomasks for 2nm node EUV


Commercialization of nanoimprinting
- Start of mass production in 2027



NIL Template

Advanced to volume zone

Continuous expansion of production capacity



Optical photomasks

FY2026-FY2028 Capital Investment Plan: ¥30 billion

Investment targets:

- Cutting-edge area : mass production of photomasks for EUV, accelerated development and commercialization of nanoimprinting
- Advanced to volume zone : Strengthening production systems to respond to two areas that are expected to continue to expand

Glass Core (Advanced Packaging Materials)

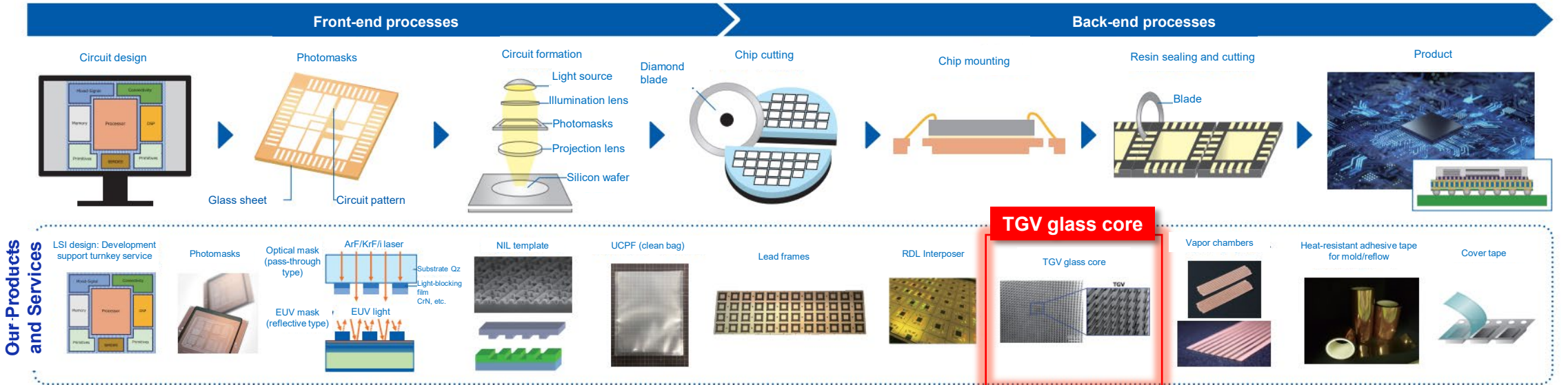
Semiconductor Business: Advanced Packaging Material - Glass Core

(Semiconductor Back-end Process)

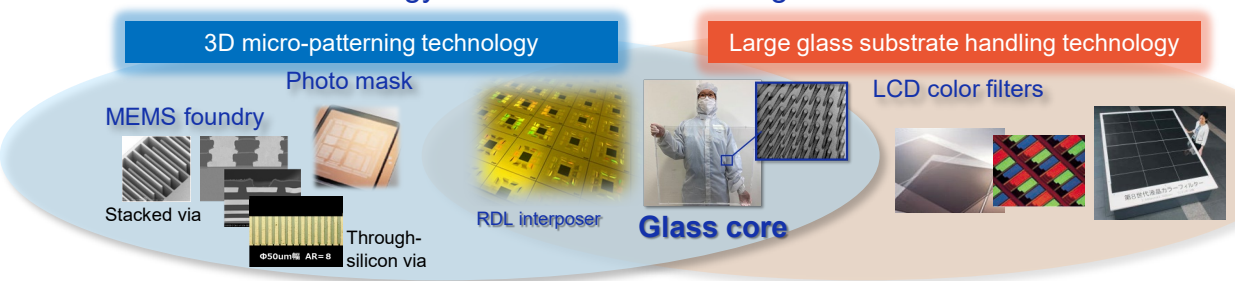
DNP

This is a new cutting-edge packaging material for our focus business area, the semiconductor business. It represents an expansion of our existing lead frame business into the cutting-edge packaging field and is a new business that will drive next-generation growth.

DNP’s Semiconductor-related Products and Services



DNP’s Basic Technology and Advanced Mounting Materials for Semiconductors



What is a glass core?

Glass core

In high-performance device packages, advanced packaging substrates typically utilize core substrates made from organic materials. However, to tackle **challenges like flatness and warping—issues that arise with the miniaturization and large-scale production of these substrates**—core substrates made from glass materials are gaining attention. Glass substrates offer advantages over their organic counterparts, making them a promising alternative.

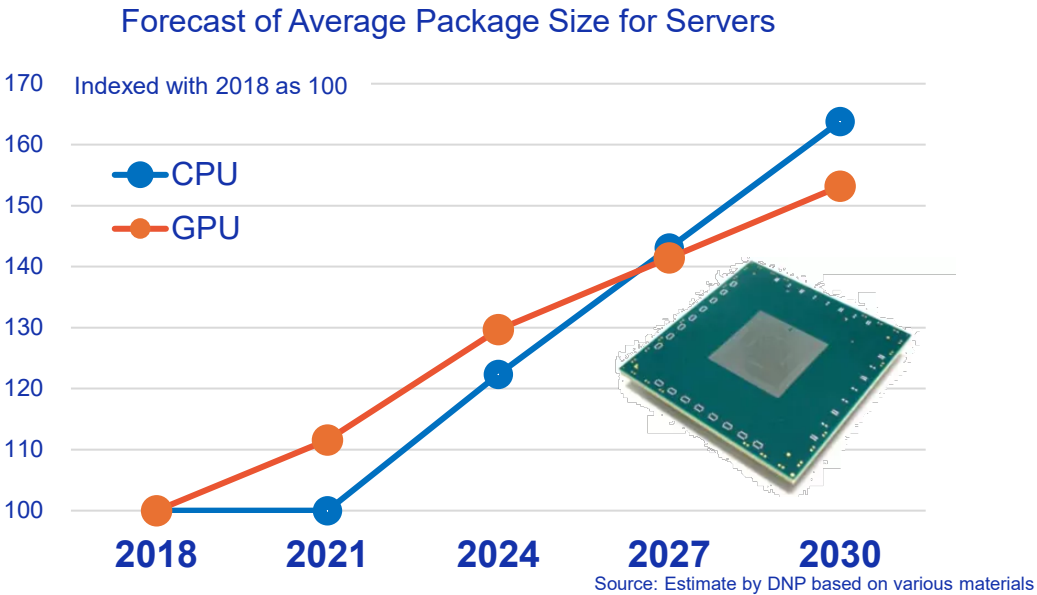
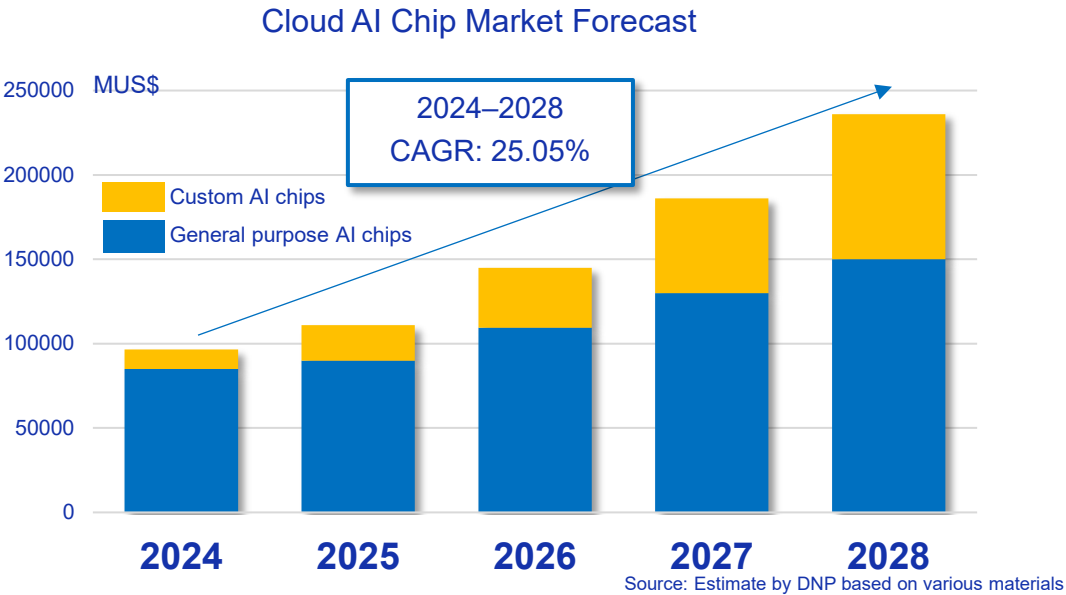
Advanced packaging substrate

Core material (organic→glass)

Semiconductor chip

Electronics motherboards

Advancements in AI and chiplet technology, along with larger package sizes, have given rise to a new market for glass cores. Semiconductor manufacturers are actively moving toward the adoption of glass cores.

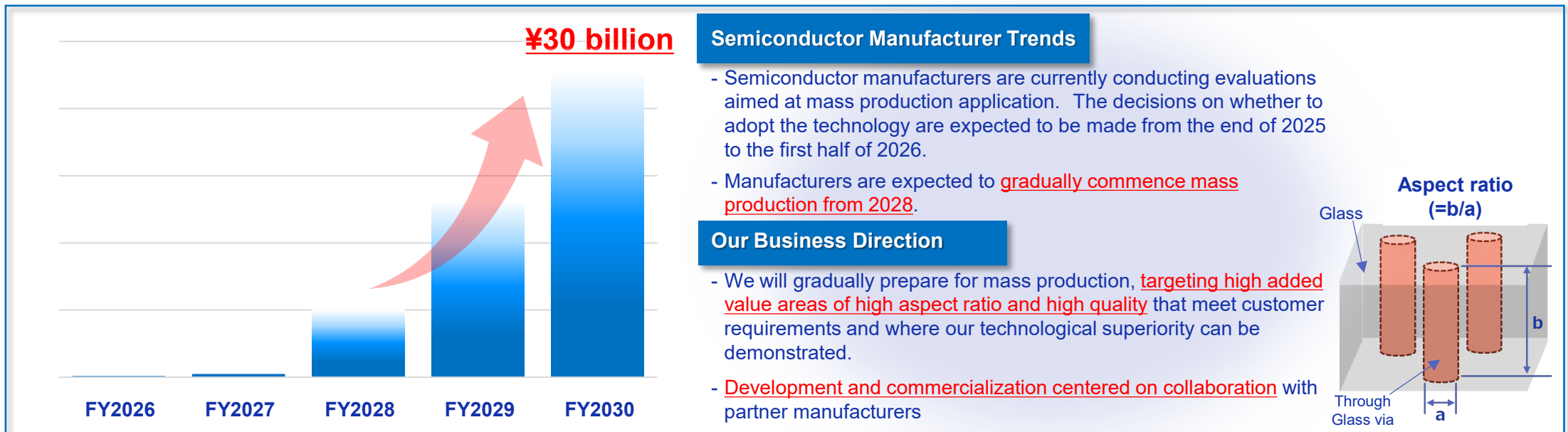


- Against the backdrop of advancements in AI and the growing use of chiplets, package substrates for advanced devices are becoming larger.
 - As the size of these substrates increases, issues such as warping, flatness, and rigidity of existing organic cores have become more apparent. This has created a demand for glass cores as a potential solution.
 - Recently, an increasing number of companies have started testing glass cores in their products, particularly since the second half of 2024, which has accelerated efforts to evaluate package reliability.
 - We anticipate that companies will make decisions regarding the adoption of glass cores between the end of 2025 and the first half of 2026.
- We will make timely decisions on capital investments in accordance with the accelerating moves by semiconductor manufacturers to adopt glass cores.

Glass Core Sales Plan

DNP

As a new business ready to drive growth in the next generation, we are planning a significant expansion and will launch a new portfolio within our semiconductor-related operations. We will gradually implement capital investments in line with the trend of semiconductor manufacturers increasingly adopting glass cores. We anticipate starting mass production in 2028.

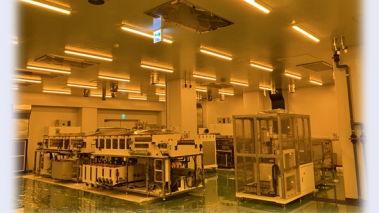


From FY2024: We are planning capital investment in line with the movements by semiconductor manufacturers and substrate manufacturers

Investment targets

- Pilot line: Scheduled to be completed at end of 2025 (Kuki City, Saitama)
- Full-scale mass production line: Planning large-scale investment assuming shift to mass production in 2028

Current status of pilot line



DNP Group IR-Day 2025



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Yoshinari Kitajima

(2) Approach to Sustainable Growth

Senior Managing Director

Toru Miyake

(3) Business strategy

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Optical Films, Metal Masks

Corporate Officer

Nobuyuki Tomizawa

Optical Films

DNP

History of DNP's Display Business

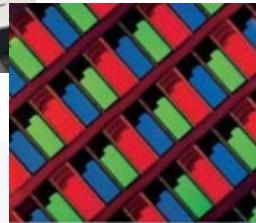
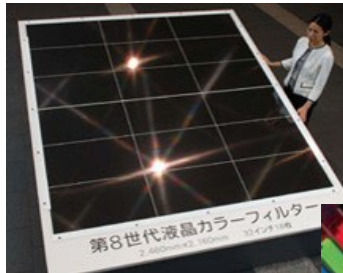
DNP

We have contributed to the advancement of display technology, from research and development to mass production, aiming to create comfortable lifestyles and deliver new value for “Displays of the Future.”

- Shadow masks for cathode-ray tubes



- Liquid crystal display color filters



- Metal masks for manufacturing OLED displays



“Displays of the Future”

- Retardation film for OLED



- Low reflection and anti-glare film for displays

- Back plates for plasma display panels, surface films, electromagnetic shielding, near-infrared filters

- Projection screens

Business Overview: Optical Films for Displays

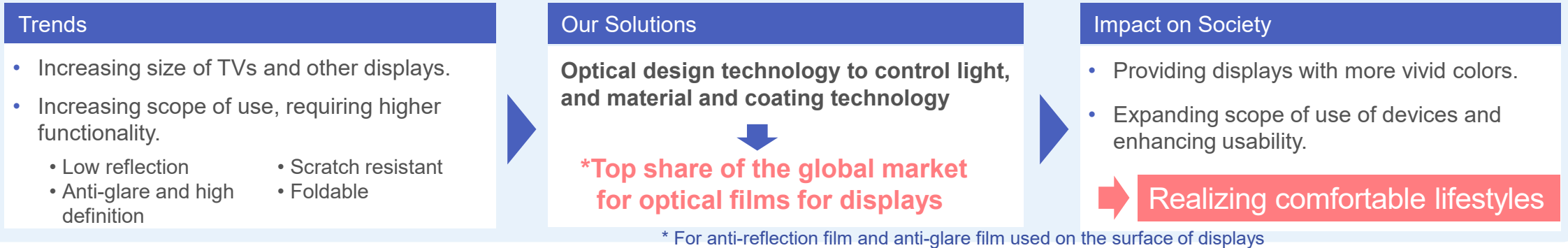
DNP

We provide optical films with various functions, leveraging our unique optical design and conversion technologies.

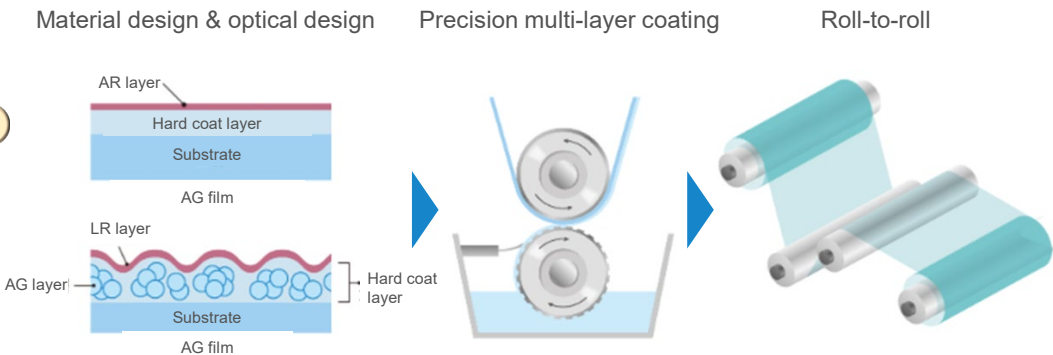
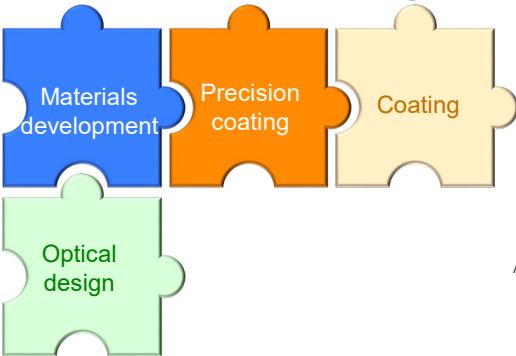


Main Products

- Anti-reflection (AR) film, anti-glare (AG) film
- Retardation film



DNP's core technologies



Precision coating technology originates from the method of applying ink materials thinly and uniformly onto the surface of a substrate. By enhancing **optical design and materials development technologies**, we have produced **optical films with a variety of functions**.

Functions and Applications of our Main Products

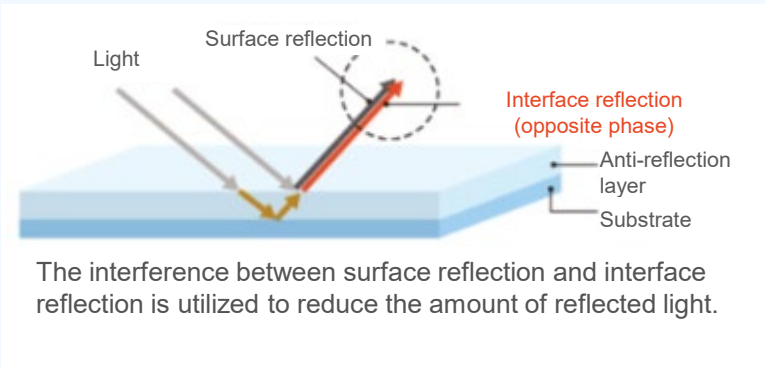


Optical films are used in televisions, monitors, notebook PCs, tablets, and smartphones. We offer a broad product lineup with optical designs customized for specific environments and various functional enhancements.

Anti-Reflection (AR) Film



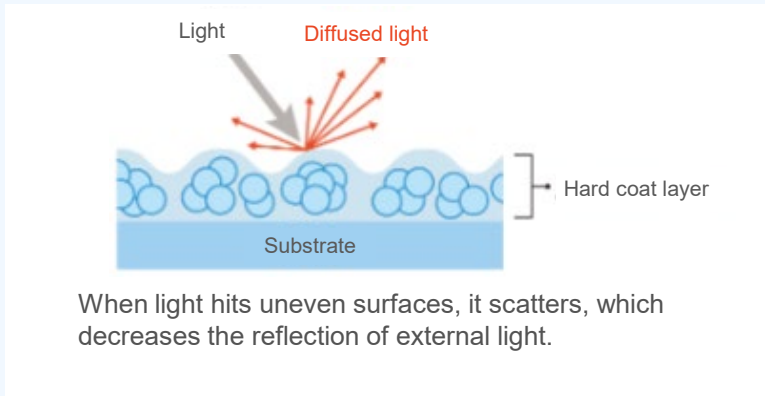
Without AR film With AR film



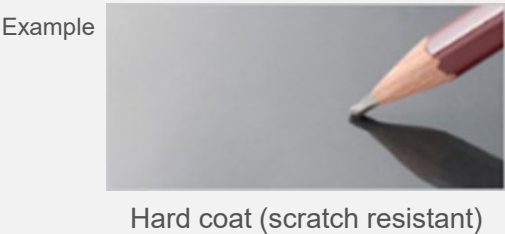
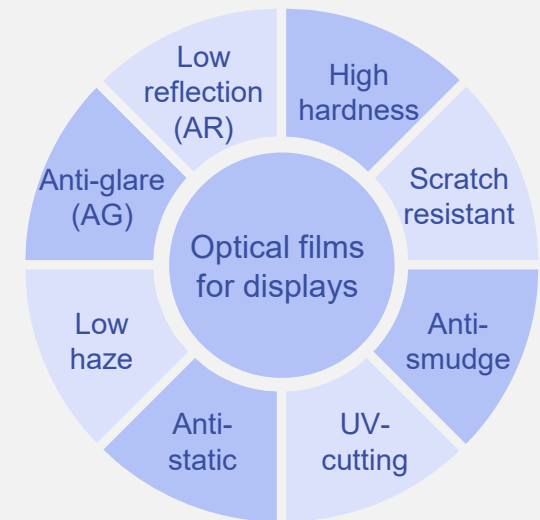
Anti-Glare (AG) Film



Conventional AG High anti-glare AG

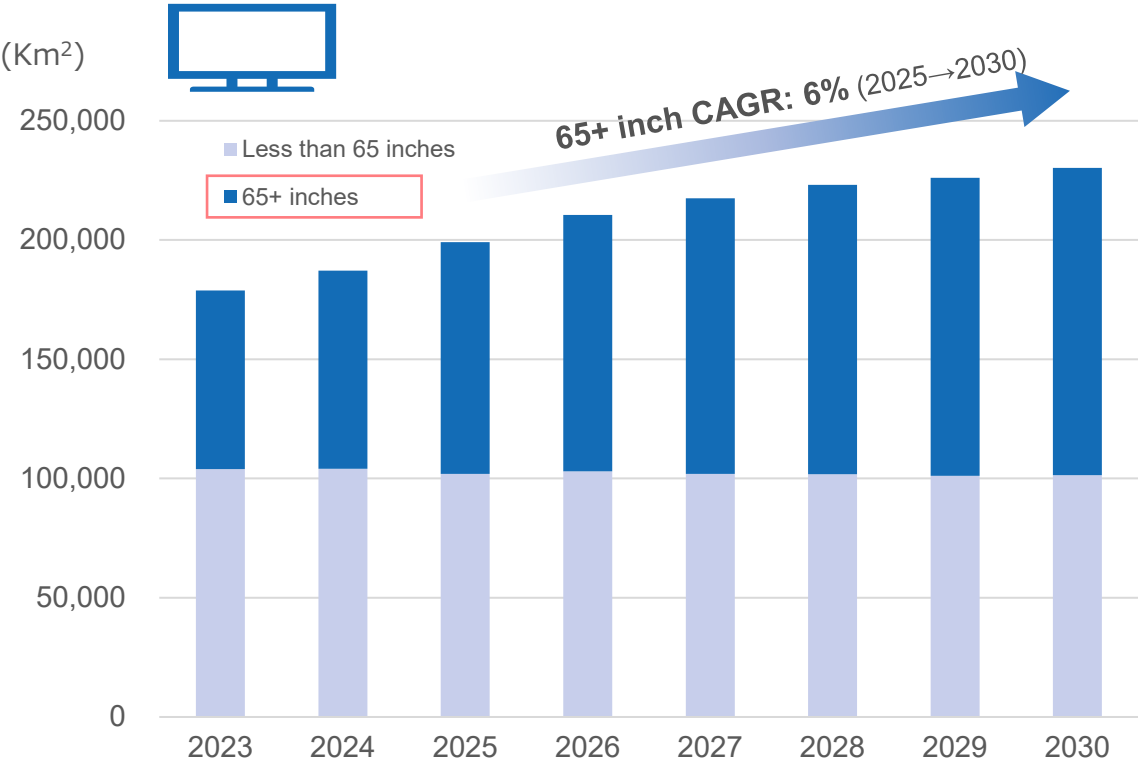


A variety of functions can be added




The demand for optical films used in large displays is increasing because of the growing size of TVs and other displays. We are increasing our production capacity to ensure a consistent supply.

TV Panel Shipment Area Forecast



Source:Omdia Display Long-Term Demand Forecast Tracker 1Q25 Pivot with 4Q24 Result

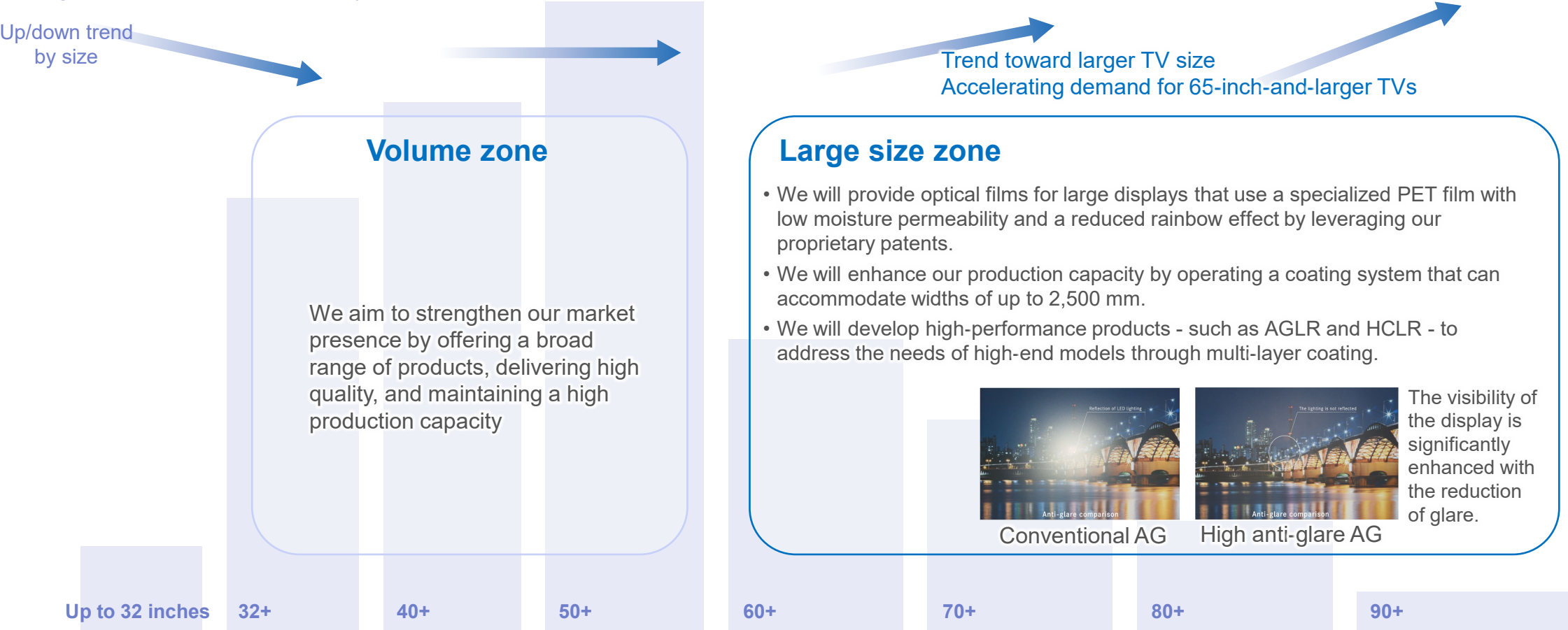
Business Environment	<ul style="list-style-type: none">Increased size of TVs2025→2030 Overall TV panel size 65+ inchCAGR : 3%CAGR : 6%
Opportunity	<ul style="list-style-type: none">Increasing demand for high function optical film for large-screen TVs
Our Strengths	<ul style="list-style-type: none">Large-scale technology, advanced functionality technology, optical design technology that controls light reflection, materials, and coating technology.Extensive production lineup to accommodate various film substrates.In-line multilayer coating production equipment to produce high functionality and high quality products.Ability to provide a stable supply of high-quality products while pursuing high productivity.
Key Initiatives	<p>We will enhance our production capacity and ensure a stable supply by initiating the operation of an ultra-wide line capable of handling widths of up to 2,500 mm, which is scheduled to commence in September 2025.</p> <div><div><p>Image of the Mihara Plant (Hiroshima Prefecture), where a new wide-range coating device has been added</p></div><div><p>Part of our coating device</p></div></div>

Business Strategy

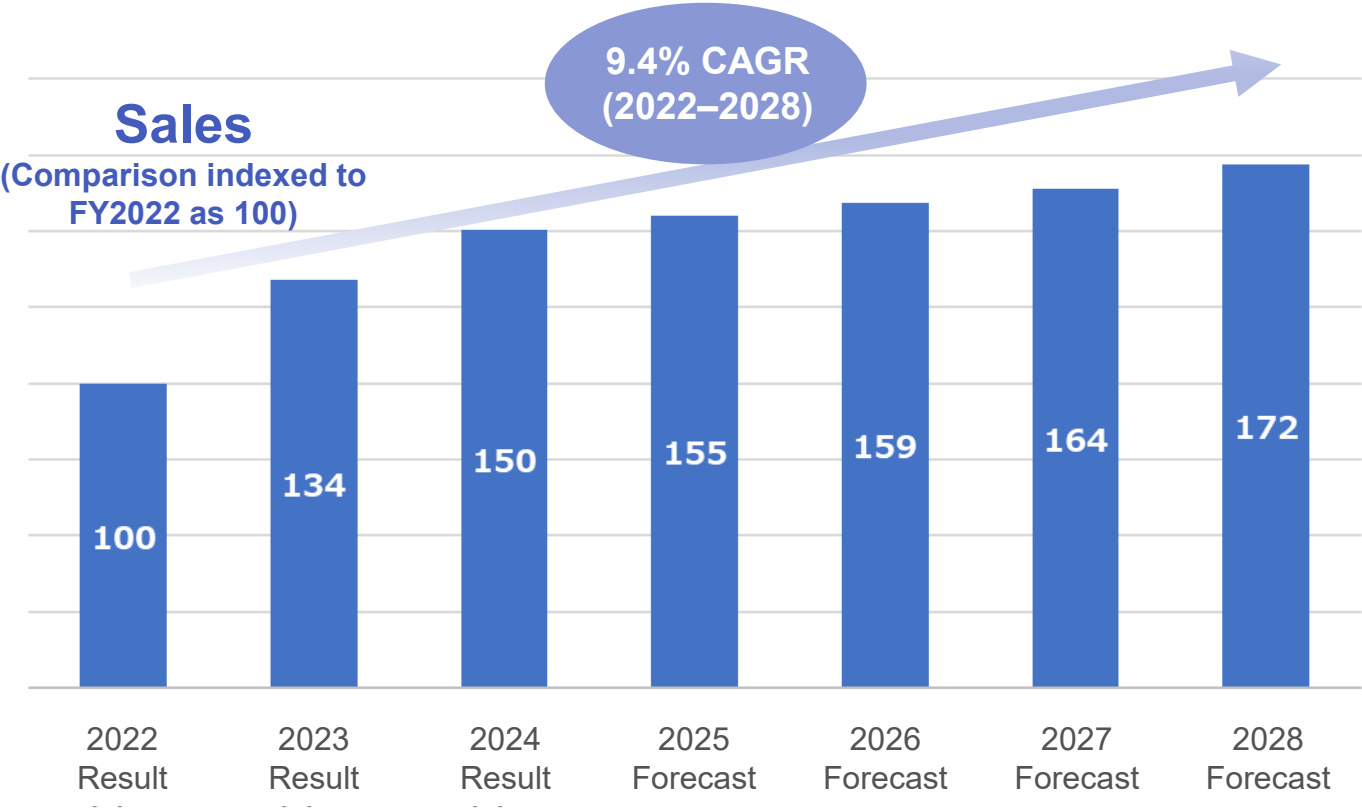


We aim to further expand our market share by increasing our production capacity for high-performance, high-quality products utilizing inline multi-layer coating.

Image of Number of Units Shipped by Television Size



Performance Forecast and Medium-Term Plan



Overview

2024 Result

Significant growth driven by an increase in the shipment area of optical films.

Background

- Larger TV panels
- Changes in the supply chain
- Increased TV sales due to consumer goods replacement subsidies in China
- A spike in shipments due to US tariff policies

2025 Forecast

Demand is expected to continue following 2024.

Future outlook

We expect growth in demand for wide, multi-layered products with high added value.

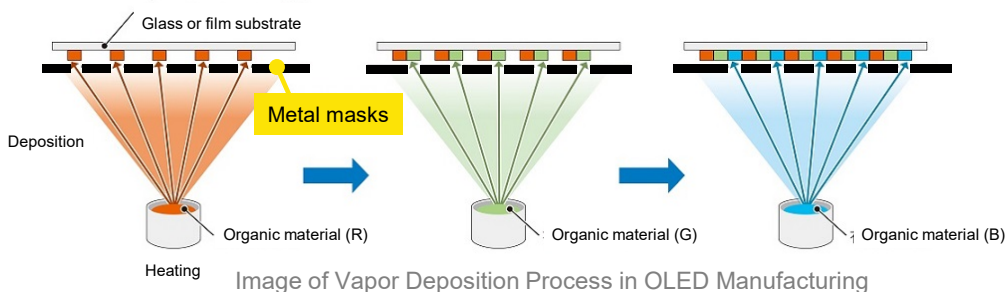
Metal Masks

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Business Overview: Metal Masks for Manufacturing OLED Displays

DNP

We provide metal masks that facilitate the thinning, lightening, high-definition, and large-scale production of OLEDs. We began developing metal masks in 2001 and have contributed to the advancement and widespread adoption of OLED technology since the early stages.



A metal mask is a thin metal plate with fine holes that are precisely patterned and accurately positioned. It is used in the vapor deposition process, which is one of the manufacturing steps for OLED panels. This mask enables the precise and accurate application of RGB light-emitting materials onto a substrate, such as glass or film.



Image of an OLED display manufactured using metal masks

Trends

- Increasing demand for smartphones
- Increasing use in small and medium devices
 - Smartwatches
 - Notebook PCs
 - Tablets
 - Automotive

Our Solutions

Our proprietary photolithography and etching technologies for manufacturing high-definition metal masks

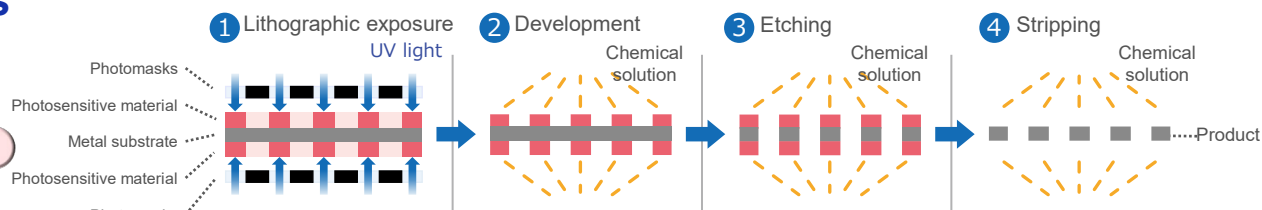
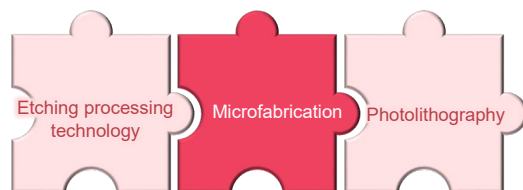
We obtained the top global market share centered on smartphones

Impact on Society

- Enabling thinner, lighter, higher-resolution displays
- Expanding possibilities for new applications through flexible form factors

Realizing comfortable lifestyles

DNP's core technologies



Conceptual diagram of general photolithography and etching processing technologies

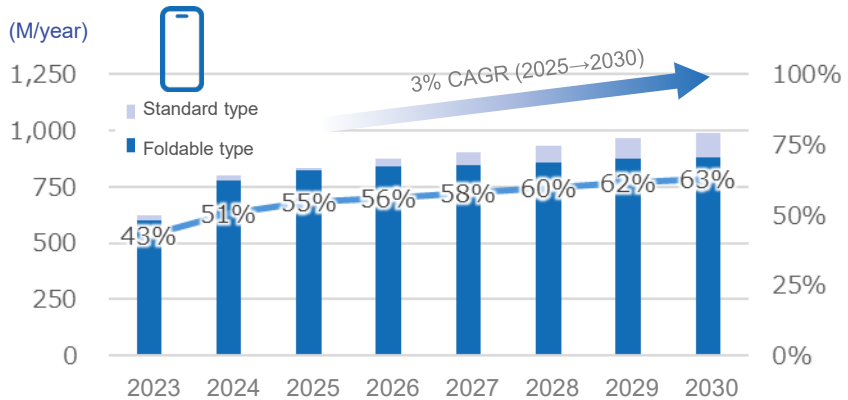
Metal masks originated from the technology used to create **printing stamps**. Through continuous refinement of the technology used to make plates for more beautiful and vivid printing, this technology evolved into high-precision microfabrication technology.

Business Environment

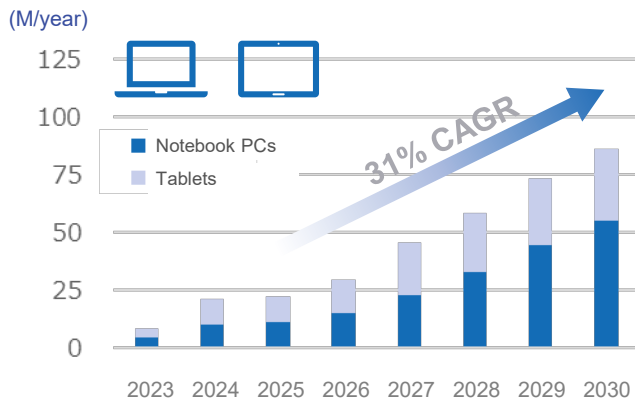
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The use of OLED displays in smartphones is growing. Furthermore, adoption is expanding in tablets, notebook PCs, and automotive displays

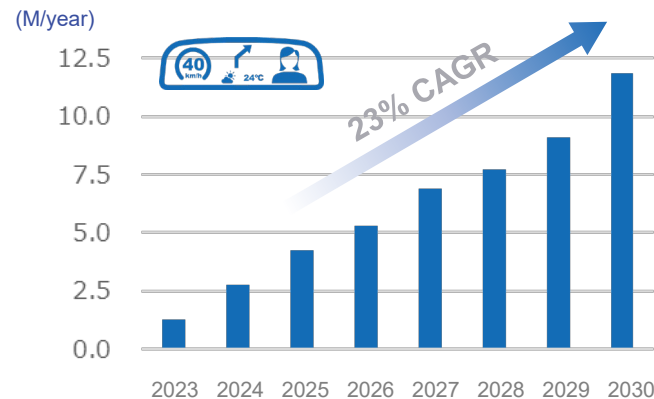
OLED Smartphone Shipment Forecast



OLED Tablets and Notebook PCs Shipment Forecast



OLED Automotive Displays Shipment Forecast



Source:Omdia Display Long-Term Demand Forecast Tracker 1Q25 Pivot with 4Q24 Result

Business Environment

- While the smartphone market has reached maturity,
 - The percentage of OLED display use in smartphone displays is growing
 - The new form factor of foldable displays has emerged
- The adoption of OLED displays in tablets, laptops, and automotive displays is growing, leading to an increase in size.

Opportunity

- Requirement for even higher-definition OLED displays
- Increasing demand for 8th-generation metal masks

Our Strengths

- High-precision photolithography and etching processing technologies.
- Superior technological development capabilities.
- Ability to provide a stable supply of high-quality, high-definition products.
- Extensive patents and know-how related to materials, manufacturing methods and products.

Key Initiatives

Strengthening our G8 production line, primarily for IT applications

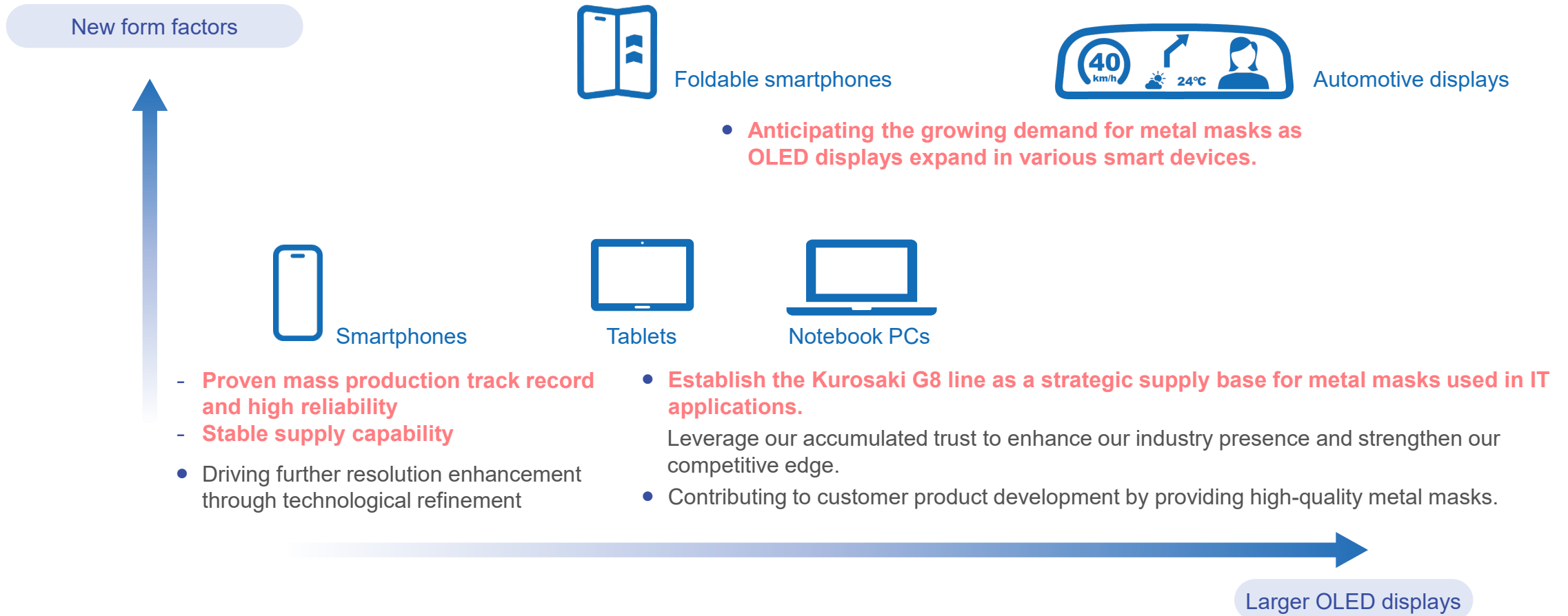
The 8th-generation metal mask production line (Kurosaki) began operations in May 2024 and continues to manufacture products for customer applications.

- Timely delivery of products according to customers' needs and plans.
- Ongoing enhancement of quality and production capacity.

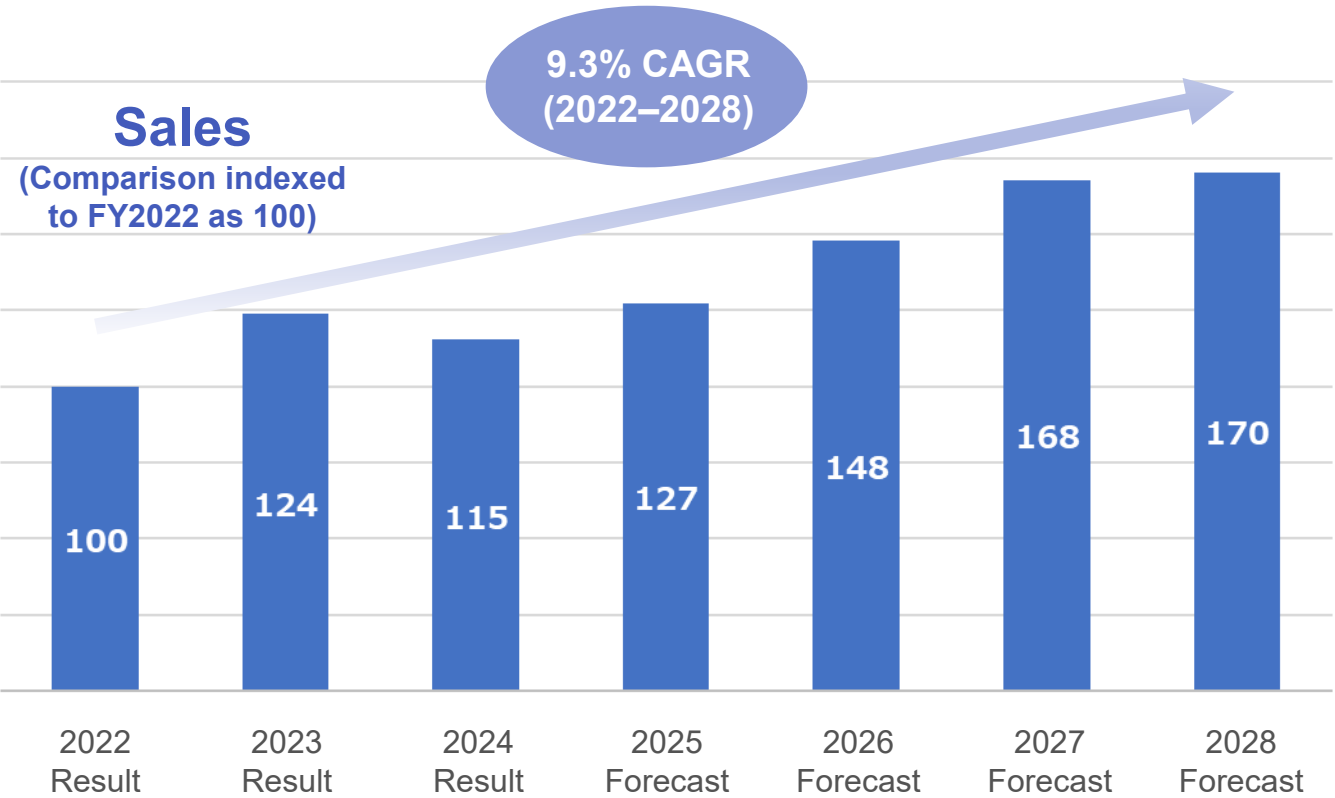
Business Strategy

DNP

Anticipating the growing demand for OLED displays across a wide range of smart devices
Contributing to the advancement of display technology by consistently providing high-quality metal masks



Performance Forecast and Medium-Term Plan



Overview

2024 Result

Sales fell due to the post-surge adjustment after strong development demand in FY2023.

2025 Forecast

The trend of increasing OLED panel adoption in smartphones and other devices continues.

Future outlook

We expect increased demand for IT devices such as tablets and notebook PCs.



Disclaimer

The earnings forecasts, medium-term management targets, and other forward-looking statements contained in these materials represent DNP's judgement of the current outlook based on information available at the time of preparation, and involve potential risks and uncertainties. Actual performance may therefore differ materially from these forward-looking statements due to changes in the various assumptions on which they are based.