

DNP Group IR Day Q&A Summary
(July 11, 2024)

[Questioner 1]

Q: The CAGR (compound annual growth rate) for sales of metal masks shown on page 7 of the presentation material is expected to be +8.3%, but considering the outlook for OLED smartphone panels and tablet/laptop production volume a higher growth rate is expected. Please provide details of your company's CAGR projection of +8.3% by volume and unit price. Also, please tell us if you do not expect a large increase in sales due to demand for 8th generation development projects.

A: In FY2023, there was a large increase in sales caused by special demand for tablet-related developed products, but the actual trend has been gradual. Metal masks are not used for each panel, but only as a jig, so our sales fluctuate depending on the number of types of products developed and mass-produced by our clients. For this reason, we are preparing business plans in light of factors such as the development plans of our clients. We will refrain from disclosing information such as unit prices. The Kurosaki Plant (Fukuoka Prefecture) will begin prototyping and partial production for the 8th generation, but this (demand for IT-related products) can currently be supported by the Mihara Plant (Hiroshima Prefecture) line. Although it depends on the plans of our clients, we do not yet expect mass production in the current or next fiscal year.

Q: It was explained that EUV masks are currently manufactured internally by semiconductor manufacturers. Please tell us again about DNP's EUV mask-related sales, whether you will be delivering EUV masks as an external supplier or whether you will be supporting semiconductor manufacturers in the production of EUV masks using your nanoimprinting technology. Also, I believe that there is an affinity with the manufacturing process of Rapidus, which uses IBM's technology, because competitors who manufacture EUV masks are following IBM's technology, but please tell us if your company will be able to enter the market sufficiently.

A: As you understand, EUV masks are mainly produced internally by semiconductor manufacturers at present, and we are currently delivering EUV masks to peripheral equipment and material manufacturers for evaluation and as reference masks. Rapidus is the first candidate for selling EUV masks for mass production in the future, and we

expect to have subsequent clients. We are also considering a business that offers solutions to manufacturers who produce EUV masks in-house to reduce the EUV mask chip costs through technologies such as nanoimprinting. Although we need to adapt, if not completely, to the IBM process used by Rapidus, we are on track regarding the process technology for 2-nanometer masks, and there is room for improvement in inspection and correction technology for EUV masks, so we will focus on establishing production technology, including appropriate quality assurance.

Q: With regard to battery pouches, if the number of pouches used for EV batteries is 100, please tell us how many would be used per vehicle in a plug-in hybrid. Also, I understand that the price of lithium-ion batteries has been falling recently, but I would like to know if the outlook for the sales price of battery pouches has changed, and if not, what is your company's competitive edge in maintaining prices?

A: If the number of pouches used for EV battery pouches is 100, our estimate is about 25 for PHEVs (plug-in hybrids) and 2 for HEVs (hybrids). However, PHEVs and HEVs using pouches are expected to increase, and we believe they will contribute to our sales to a certain extent. At present, with an overwhelming market share in Europe and the U.S., we do not anticipate a significant decline in prices, but we will take measures to increase price competitiveness in case competitors emerge, and at the same time, we will consider ways to enable us to maintain our strengths by means such as utilizing patents.

[Questioner 2]

Q: Please tell us about your current business portfolio and how you envision the selection and concentration of businesses to increase management efficiency.

A: Our current business portfolio certainly includes good and bad areas, but we are constantly transforming our business portfolio by looking at the substance of each business area. As for low-margin divisions, we will consider withdrawing from areas where our competitiveness has weakened, but we will also consider mechanisms to increase profitability by focusing on areas where we are highly competitive, and continue to take measures such as reskilling human resources and reallocating them to new areas.

Q: Regarding the Content and XR Communication business, you have said that you will increase content sales to overseas markets, but can you tell us to which

countries you plan to sell, specifically what you will sell and whether you are ready to do so? I would also like to know what kind of things would lead to sales in the XR business.

A: We are engaged in the operation of special exhibitions for various large-scale events, and the development and sales of original products, mainly in North America. In addition, we opened the Tokyo Anime Center in San Francisco in April 2024. We plan to collaborate with our clients on a variety of products and services originating in Japan, including capsule toys, to offer them in North America. We will also consider country-specific and region-specific content offerings to attract new fans and cultivate existing fans in depth according to the characteristics of the fans and content. For the XR business, we plan to expand from entertainment into education and industrial fields such as factories and healthcare. As specific initiatives, we have begun to develop a metaverse for children who are unable to attend school, which is used by 30 municipalities in Tokyo, and a metaverse government office, which provides the consultation services of government offices in the XR space.

Q: Regarding optical films, what is the current market composition ratio of film base materials (TAC, acrylic, PET) and what is the future outlook for them? I also believe that your market share of optical films is increasing, but I would like you to tell us about its continuity in the future.

A: More than half of the films used in televisions in the market as a whole use PET as a base material. Going forward, we believe that we will be able to increase our market share by improving productivity of PET base material manufacturer. In addition, due to the impact of the sale of the business of a competing Korean manufacturer to a Chinese company in FY2023, DNP has achieved a very high market share by enhancing productivity and handling many of the surface materials manufactured by that competitor. In the long term, we intend to stably maintain and expand our market share by means such as concluding contracts with our clients.

[Questioner 3]

Q: Regarding the section on boosting capital efficiency on page 2 of President Kitajima's presentation materials, please tell us if there is a priority order for the five measures, including acquisitions of treasury shares, dividend increases, carving out non-core and unprofitable divisions, and reducing strategic shareholdings.

A: We are currently giving top priority to acquisitions of treasury shares. Our initial plan

was to achieve 300 billion yen in acquisitions of treasury shares over a five-year period, and we are currently working toward the goal of 150 billion yen. After achieving the remaining 150 billion yen, we plan to increase dividends and consider carving out unprofitable divisions. The reduction of strategic shareholdings and the sale of idle real estate are still being conducted in parallel. However, depending on the circumstances and conditions in which the Company is in, we may begin other measures in parallel before achieving the goal of 300 billion yen.

Q: Regarding battery pouches, it is reported that a North American automotive battery manufacturer will start operating a new plant in 2025 to increase OEM manufacturing. Please tell us about the readiness of your supply capacity and the necessity of new large-scale investment. Also, what measures are you taking to hedge risks in the event that the plant's operation is postponed or scaled back?

A: We believe that our production capacity within the scope of our current investment is not a problem. Although there is a possibility of postponement of operations at some plants and that the operation rate may fluctuate depending on the sales of EVs, PHEVs, and HEVs, we intend to respond by fully assessing the status of operation and setting up optimal personnel and production systems as needed.

Q: The release states that the start of operations of the Kurosaki Plant will double the production capacity of metal masks, but it is expected that the capacity will not yet be fully utilized two years later. Please tell us the background behind making the capital investment in 2024 despite this and when you expect to be able to fully utilize the doubled capacity.

A: Metal mask lines are not designed to increase production capacity in stages, and all processes must be in place to start production. Furthermore, we made an upfront investment for the timely provision of development and sample products to our clients who have already decided to invest in the 8th generation. Furthermore, the investment was made at this time to ensure sufficient capacity so as to leave no room for competitors to enter the market, and to secure a production system other than the existing Mihara Plant from the perspective of business continuity planning (BCP). Full operation is planned for a period beyond 2026, when OLED panels will replace LCD in more than 50% of today's smartphones, and when the adoption of OLED panels will be considered for tablets/laptops and for automotive applications.

[Questioner 4]

Q: Regarding metal masks, please tell us about the advantages of your technology and the competitive environment, and whether the risk of competitors entering the market will increase as IT products shift to the 8th generation in the future. I would also like you to tell us if your patents for invar materials will expire in the foreseeable future.

A: We are highly competitive due to our patents for invar materials. These will not expire for the foreseeable future. Due to the need for high-definition fine pitch no longer being required as the panel size becomes larger, companies are considering vapor deposition and printing methods that do not use metal masks for manufacturing OLED panels, but many issues remain, such as the lengthening of the process affecting yields. We are obtaining a variety of information to determine whether the technology will be replaced, but at this point we do not believe that the situation will immediately change to the metal mask method. Furthermore, we are developing and improving our technology to achieve even higher definition with the metal mask method to enable us to compete with the advantages of other manufacturing methods.

Q: There does not seem to be any progress in nanoimprinting, although you have been working on it for some time. Please tell us about the technological challenges and any recent progress. I would also like you to tell us about the number of clients and applications (memory and logic).

A: Since nanoimprinting significantly changes the semiconductor process, plans must be made in the long term such as when to introduce targeted products and replace equipment. We believe that the reason for the delay is that the target products to use nanoimprint technology have been changing due to changes in prices of materials and equipment in the course of this planning process. Regarding the sales target of 4 billion yen for 2030, we have jointly developed products for Kioxia and Canon until now, concentrating on development for Kioxia, but the three parties have agreed to expand sales channels beyond Kioxia. We will avoid disclosing individual clients, but we are receiving an increasing number of specific nanoimprinting inquiries other than from Kioxia. Applications include both memory and logic.

Q: Please tell us about the scope of your glass core business and the technical response to glass core.

A: We believe that the process of embedding copper in via is where we can take advantage of our company's strengths. For opening holes in glass in the front-end

process, we intend to create our own formation technology in the future. For wiring in the back-end process, we are considering a supply chain in which we sell the substrates to semiconductor package manufacturers, who then process the wiring, and finally the chips are placed on the substrates in OSAT to make semiconductor packages. With the recent developments in areas such as generative AI, there is a trend of not only higher density inside chips, but also of the use of chiplets, in which multiple chips are packaged together in a single package. We believe that this technology is attracting attention because the rigidity and flatness of glass core substrates facilitate chiplet production by eliminating warping and distortion that occur with conventional organic substrates, which have been technical obstacles to chiplet production.

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