

**Financial Results Briefing for the Fiscal Year Ended December 31, 2022****Question & Answer**

- Date/time: Feb. 21, 2023 10:00am – 11:00am (Japan time)
- Speakers:
  - Satoru Takashima: President and Representative Director, and Group CEO
  - Hiroyuki Hamada : Managing Director, General Manager of Corporate Planning Division
  - Takeshi Arimura: Executive Officer, Group Financial Director
  - Hideki Okaichi: President and Representative Director, TOYOCOLOR CO., LTD.
- Presentation Material :  
[https://schr.d.toyoinkgroup.com/en/ir/archives/pdflib/2022/frp\\_fy2022\\_q4\\_en.pdf](https://schr.d.toyoinkgroup.com/en/ir/archives/pdflib/2022/frp_fy2022_q4_en.pdf)

**TRANSLATION:**

This is a transcript of Financial Results Briefing for the Fiscal Year Ended December 2022, Question & Answer session, held on Feb. 21, 2023. This is an English translation of the Japanese original, prepared only for the convenience of shareholders residing outside Japan. The original Japanese version will prevail should there be any difference in the meaning between the English version and the Japanese version.

**DISCLAIMER:**

The forecast or projections in this material are based on the assumptions and beliefs of our management in light of the information available as of Feb 21, 2023. Changes in global, economic and business conditions could cause actual results to differ materially from these forecasts.

The content of this transcript have been edited or revised by the company.

## Question & Answer

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**Q.1 :** The question is about the materials for displays. In the presentation materials page 7 and 8, the forecast of operating profit of this fiscal year expect market recovery of materials for displays for JPY200 million. Also, in the presentation page 11 regarding the materials for displays, the panel production capacity utilization rate bottomed out in Q3 and is expected to recover in Q4.

In terms of materials for displays, are there already signs of recovery in terms of demand, or is it still difficult to see recovery in H1 of 2023, but you see recovery starting in H2? Could you explain a little bit about this current recovery and the outlook for 2023?

**A.1 (Okaichi) :** As for your question about market conditions for materials for displays, I think your question is about whether the market is on a recovery trend from 2022 to 2023.

In 2022, the production declined in Q2 and fell further in Q3. I believe that inventory levels have been adjusted slightly since the latter half of November at the end of Q4, and that production has risen slightly in anticipation of the year-end and New Year sales season as well as the Chinese New Year sales season.

However, I still feel that it will take Q2 to Q3 of 2023 to return to the FY2021 level, as indicated on the presentations.

To be more specific, it is said that 400 million units of TV were produced in 2021, and since the average annual consumption is now 200 million units, that is how much inventory has accumulated and everyone in this industry is still struggling. Some panel makers are cutting back or even exiting from the market, and we assume that the recovery will be strong or weak, depending on the customer.

SIC-II Medium-Term Management Plan - Policy (1): Strengthen the profitability of businesses  
**Materials for Displays: Respond Flexibly to Changes in the LCD Panel Market**

**TOYOINKSC**  
For a Vibrant World

- The LCD panel market has been sluggish since the latter half of the first half of FY2022. Inventory adjustments settled, and the market will likely recover from the second half of FY2023.
- The shift to China is accelerating and competition is intensifying. Mass production testing will continue to acquire customers.

**Commoditizing market**  
(Large size panel)

**High-end market**  
(small and medium-sizes panel)

**Expand sales in the Chinese market, the world's largest market**

**Strengthen cost competitiveness**

Innovative integrated production method for processes from pigments to resists

**Enhancing local sales systems in China**

Resist inks: Cooperate with local partners  
 Paste: Increase the number of customers in collaboration with trading companies

**Thorough differentiation, development of functional products, expanding market share**

**Small and medium panels**

Thin and high definition films

**Sensors**

CMOS and wavelength control

**Environmental load reduction**

- Dispersion-less pigment
- Low temperature curing

**Outlook for LCD Panel (TV) Market** Assuming the 2021 date as 100

Capacity utilization

Demand for panels (area)

**Share in Global Market for Resist Inks**  
(trends, targets)

To global market share of **15% in 2023**

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**Q.2 :** Additional questions on materials for displays. Is it correct to say that panel makers have already completed inventory adjustments to some extent and the utilization rate is increasing? As for the increase in your company's market share from 14% last year to 15% this year, would you say that you are more aggressively promoting small and medium-sized high-end panels rather than large-sized panels?

**A.2 (Okaichi) :** Regarding the inventory adjustment, the situations vary for each panel makers. We feel that there may be 30% to 40% of the companies that have come out of the worst period of 2022.

Of course, we are also targeting large-size panel market, and we will certainly increase our market share of in large-size panel and pursue high-end panel , which are expected to increase further in the future.

**A.2 (Takashima) :** There are two ways in which we can now see a path to take a large share of the market.

One is China, which is a general-purpose market and will be our main battleground in the future. Regarding how to capture this market, we expand sales channels through an alliance with a local company. This is progressing well, and we are seeing more and more of our new materials being adopted.

And then Taiwan, where our competitors have already announced their withdrawal or where our customers think they will do so in the future. This is a tailwind for us. Since we have gained customers' confidence in the sustainability of our supply for the future, tests of our products are progressing one after another, partly because the production line at the customer is open this time.

Another strengths of new product is that our low-temperature curable products are in line with Taiwan's national policy of zero greenhouse gas emissions, and testing is progressing on these products as well.

Product development in the general-purpose and high performance fields, taking advantage of the trends of our competitors, our distributors, and the movements related to environmental issues, we are expanding our market share with each of these factors as a tailwind now.

**Q.3** : This is about the CNT dispersions. According to the page 13 of the materials, the sales for the last fiscal year were JPY3.2 billion, and this year it is expected to be JPY7.5 billion, which is 2.3 times as much as last year. I have a feeling that the hurdles are somewhat high, but I would like to confirm whether the sales for CATL will contribute to some extent.

Also, you have raised the target figure for 2026 from over JPY20 billion to over JPY35 billion, so please tell us if CATL will contribute to some extent in this area as well.

What about the JPY15 billion that you have increased from over JPY20 billion to over JPY35 billion? Is it for CATL or whether SK ON has further increased from the previous plan?

**A.3 (Okaichi)** : Regarding your two questions, first, I think you are asking what will contribute to this year's target of JPY7.5 billion. As for CATL, we assume that it will start in 2024, and we are currently expanding our facilities.

Therefore, for this year's increase, we will be operating at full capacity in Hungary, where we are currently managing production, and in Georgia in the United States. Hungary, in fact, has been in operation since last summer, so the figures are based on the expectation of an increase in production in that area.

And as for the JPY35 billion figure for 2026, I think it's easier to understand if you consider that the size of the circles on the left map of page 12, North America, Europe, China, and Japan, roughly indicate the scale of sales.

We had not conducted our business with CATL at the time of the last target JPY20 billion, so we did not include them. So, while there will certainly be a net increase in sales for CATL, the sales plans for US battery manufacturers is even larger than that.

In the map at the bottom right on page 12, our factory is marked in red, and the black dots are the battery manufacturers who have announced their plans for the project, and this is how much investment will be made. It is difficult to give specifics, but several of these manufacturers have made offers to use our materials. We are aware that JPY15 billion will be obtained from including these figures, CATL in China and the second base in the United States.

SIC-II Medium-Term Management Plan -Policy(2):Create and expand priority development domains



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Dispersions for LiB① Product Adoption at CATL in China, Establishment of a new company in North America

- Demand in China and in North America expanded for Toyo Ink Group's conductive carbon nanotubes (CNT) for LiB cathode materials. Mass production has commenced in succession.

**China**

**Adopted by the world's largest automotive battery manufacturer, CATL**

- It has been selected for use in next-generation high-capacity LiBs for high-end electric vehicles (EVs) with long cruising ranges.
- Facilities in Toyo Ink Group's base in Zhuhai, China will be expanded to increase production capacity.
- It will be installed in mass production models in 2024.



Zhuhai Toyocolor Co., Ltd. appearance

**North America**

**The U.S. automotive battery market is expanding rapidly. A new company and plant are established as the second site in North America.**

- Given that a sharp rise in demand for EVs and automotive batteries in the North American market would lead to insufficient product capacity, LioChem e-Materials LLC was established as a second base in North America following the existing plant in the state of Georgia (LioChem, Inc.).
- Mass production will start in 2025.



The second site  
Existing site

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Q.4 : In terms of future capital investment, can you give us a breakdown of the JPY8.8 billion for FY2023 that you mentioned earlier? How much will be invested in which regions and in

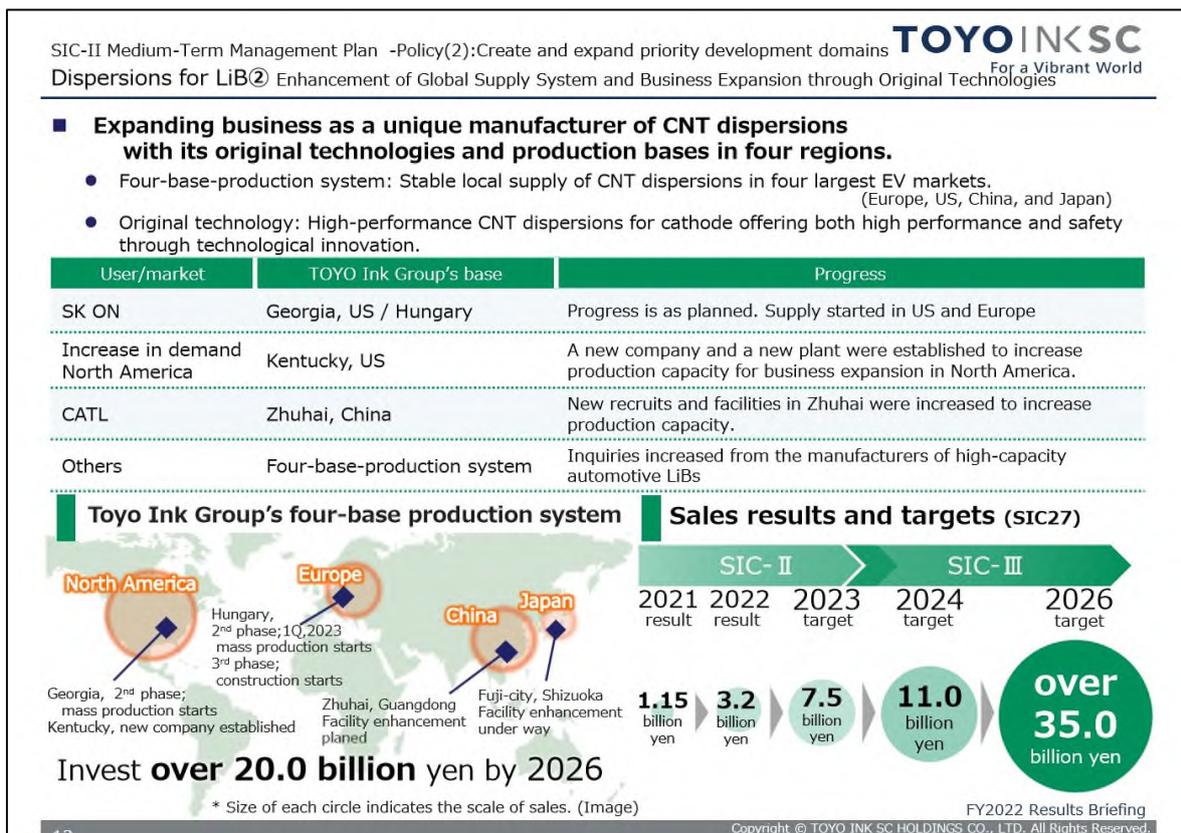
each of the various locations? Do you have a specific amount to invest in next year? Would you say that the relatively high level of investment will continue in the next fiscal year, FY2024?

**A.4 (Okaichi)** : Regarding the capital investment of JPY8.8 billion for FY2023, If you look at China and the US, I think it would be correct to imagine the ratio as roughly 1:2. If the investment in China is one, we are considering investing about twice that amount in the US.

In addition, we are considering our next investment next year, and our focus will be on the United States. We plan to continue our investments in this area in FY2024 and beyond.

We have heard from the battery manufacturers about their forecasts and investment plans, so we will be following them accordingly.

It says that the total investment will be JPY20 billion by 2026, but actually we are planning to spend a little more. For 2024, as you say, we plan for a relatively high level of investment to continue.



**Q.5 :** I would like to ask you about the eight major products on page 10 regarding pressure sensitive adhesives. I understand from President Takashima's explanation earlier that the next expansion in India is in your sights. I would like to hear about the field of application and, if you know at this point, the timing and scale.

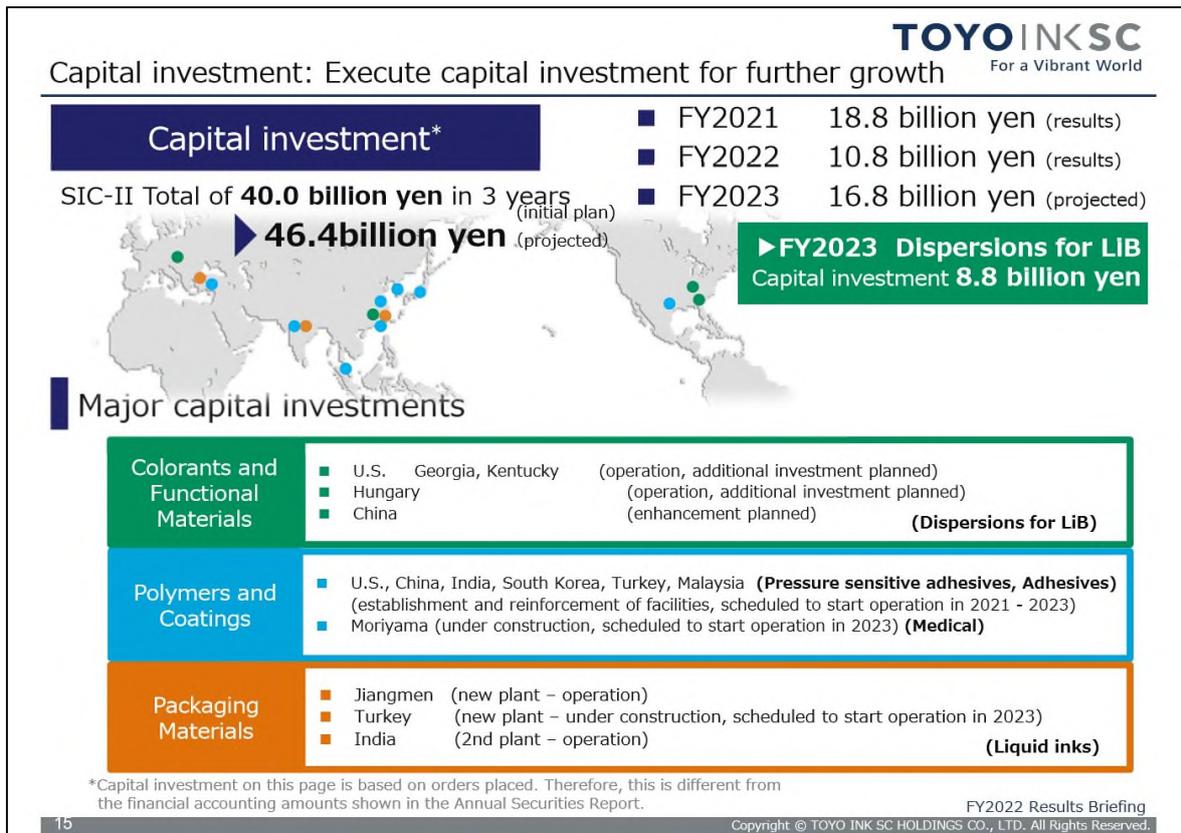
**A.5 (Takashima) :** There are two varieties of adhesives in India for us. One is a pressure sensitive adhesive and the other a laminating adhesive for food packaging. Both products are made at the same factory, in Gujarat, which has invested in new equipment and is beginning to operate.

As for the application of pressure sensitive adhesives, this was in line with our goal, but the market and demand for adhesives is sure to grow in the future, as India is expected to domestically produce rolls and films, or rather finished products, which it has imported from overseas in the past.

Therefore, what we have invested in is a solvent-based adhesive, which is being used as an adhesive for tapes and various types of high-functional films and is expanding. The number of clients is increasing very rapidly. We are already running out of equipment and are planning our next capital investment.

The other is laminating adhesive. This is being marketed together with gravure inks. Gravure inks are growing very well, and, at the same time, our adhesives are also growing steadily, especially non-solvent type laminating adhesives.

Regarding this adhesive, it shares the equipment with the gravure resin, and that's what we are currently doing. Therefore, we are discussing whether to invest in more facilities for this adhesive or to expand it through alliances with local manufacturers or do both. That's the direction we are going with regard to the laminating adhesives. As for pressure sensitive adhesives, I think we will invest in our own facilities.



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**Q.6 :** Do you have a rough idea of your own investment in pressure sensitive adhesives? Is it decided? And I would like to ask a little more about the tapes that India is going to produce domestically. Is it something for generic purposes?

**A.6 (Takashima) :**

Regarding the own investment in pressure sensitive adhesives, some part is starting now, the next investment will not be this year, but next year or in 2025. It has not been decided yet.

Some are general-purpose, including those for construction materials and automobiles, and some are relatively high value-added. In particular, we see a movement underway in which major American and European manufacturers are bringing in film for slitting or cutting, and local Indian manufacturers started doing similar work.

**【END】**