4Q/Full-Year Ended December 31, 2023
Conference Call (Held February 8, 2024)
Presentation and Question & Answer Summary

Presentation

Moderator: Good afternoon, ladies and gentlemen. Thank you very much for taking time out of your busy schedule today to participate in the Renesas Electronics Corporation 2023 Q4 and full-year financial results meeting.

Mr. Hidetoshi Shibata, President and CEO; Mr. Shuhei Shinkai, Senior Vice President and CFO, and other staff members are attending today's briefing. Mr. Shibata will now make a few remarks, followed by an explanation of the Q4 and full-year financial results from Mr. Shinkai, followed by a question-and-answer session. The entire briefing will last 60 minutes. The materials used in today's briefing are the same as those posted on the IR site of the Company's website.

Shibata: Good morning, everyone. My name is Shibata from Renesas Electronics. First of all, I would like to express my condolences to the victims of the recent earthquake in Noto and Hokuriku. We hope that life will return to normalcy as soon as possible. In spite of these circumstances, I would like to share with you today our financial results for the past year.

In the last year, in our segment, I would say that the adjustment in the IIoT segment has continued for much longer than we originally expected. On the other hand, automotive was very strong, strongly supporting overall sales. Partly aided by the effect of the yen's depreciation, the situation was a slight decline of 2.2% in revenues compared to 2022.

At the same time, we continued to manage our inventory very strictly, based on our past experience. I would say right now, at the moment, that I think the inventory level for automotive is a little too low, and IioT is low, but I think it is at the lower end of a reasonable level to start with.

Based on that, for this Q1, this year, we are seeing continued strength in automotive, but I think we need to focus a little bit on channel inventory to bring it back or expand it.

On the other hand, we expect that this Q1 will also continue to adjust, especially for the industry and mass market within IioT, and as of now, we would say that this Q1 will be the bottom, and we expect a slight recovery from Q2.

Additionally, AI-related demand is coming in very strongly, but compared to our overall sales, it is not yet a large portion, and we are also facing production risks as the demand for AI-related products is rising, so we are trying our best to catch up with the growing demand as much as possible.

In addition, the Company has now announced the start of a dividend, which is technically a restart. At the same time, we are also canceling some of our treasury shares, as we have received many questions about them in the past. We will continue to actively engage in M&A as necessary, so we will not focus solely on dividends, but rather will balance shareholder returns and M&A with a dual focus.

These are the outlines of the current financial statements. Mr. Shinkai will be happy to discuss the details with you.

DISCLAIMER

- **Adoption of IFRS:** With the outlook that the Group will continue to expand globally and to provide financial figures that can be compared on a global scale, the Group discloses its consolidated financial statements in accordance with IFRS starting from the annual securities report for FY2018/12.
- **Non-GAAP figures:** Non-GAAP figures are calculated by removing or adjusting non-recurring items and other adjustments from GAAP (IFRS) figures following a certain set of rules. This adjustment and exclusion include the amortization of intangible assets recognized from acquisitions, other PPA (purchase price allocation) adjustments relating to acquisitions, stock-based compensation, as well as other non-recurring expenses and income the Group believes to be applicable.
- **Presentation of financial forecasts:** Starting from the consolidated forecasts for the three months ended March 31, 2019, the Group presents its financial forecasts as a range, and gross margin and operating margin figures in the non-GAAP format. The gross margin and operating margin forecasts are given assuming the midpoint in the sales revenue forecast.
- **Purchase Price Allocation (PPA):** The allocation of the acquisition costs for the business combinations with Steradian Semiconductors Private Limited ("Steradian"), and Panthronics AG ("Panthronics") has been revised: at the end of the three months ended March 31, 2023 and at the end of three months ended December 31, 2023, respectively. These revisions to the allocation of the acquisition costs have been reflected in the consolidated financial results for the year ended December 31, 2022, for the three months ended June 30, 2023 and for the three months ended September 30, 2023.

 Page 3

Shinkai: I am Shinkai, CFO. I will explain the details of the financial results for the Q4 and full year based on the presentation materials.

Disclaimer. As noted in the fourth point, we now reflect the results of the PPA of Panthronics, which completed its acquisition in June 2023.

And, before I forget, there are two points, one is the integration of the ERP system, the first of which will be implemented in May of this year. This system integration will have almost no impact on Q1, but we expect some impact on Q2, which we will clarify and explain at the time of the next financial results.

Another point is to update the way segment sales are accounted for in conjunction with the reorganization in January of this year. We will continue to classify the two segments as automotive and industrial/infrastructure/IoT, but we plan to figure out which segment we will go with based on the sales recorded and the actual applications. This will be applied from Q1, and I will explain the details at the next financial closing.

4Q/FULL-YEAR 2023 FINANCIAL SNAPSHOT

NON-GAAP

(B yen)	2022		2023								
	4Q (Oct-Dec)	Full Year (Jan-Dec)	3Q (Jul-Sep)	4Q (Oct-Dec) Forecast	4Q (Oct-Dec) Actual	YoY	QoQ	Change from Oct 26 FCT*1	Full Year (Jan-Dec) Actual	YoY	Change from Oct 26 FCT*1
Revenue	391.3	1,502.7	379.4	358.0 (±7.5)	361.9	-7.5%	-4.6%	+1.1%	1,469.7	-2.2%	+0.3%
Revenue (Excluding Foreign Exchange Impact)	-	-	-	-	-	-8.1%	-6.6%	+0.1%	-	-6.9%	+0.0%
Gross Margin	56.0%	57.4%	57.9%	56.0%	56.4%	+0.4pt	-1.5pts	+0.4pt	57.0%	-0.5pt	+0.1pt
Operating Profit (Margin)	135.7 (34.7%)	559.4 (37.2%)	132.3 (34.9%)	30.5%	115.5 (31.9%)	-20.2 (-2.8pts)	-16.8 (-3.0pts)	+6.3 (+1.4pts)	501.6 (34.1%)	-57.7 (-3.1pts)	+6.3 (+0.3pt)
Profit Attributable to Owners of Parent	109.3	377.3	108.3	-	98.2	-11.1	-10.1	-	432.9	+55.6	-
Profit Attributable to Owners of Parent (Excluding Foreign Exchange Impact)*2	85.6	429.2	104.6	-	104.9	+19.2	+0.3	-	424.4	-4.8	-
EBITDA*3	155.5	639.2	152.6	-	136.0	-19.4	-16.5	-	581.9	-57.3	-
1 US$=	144 yen	130 yen	142 yen	147 yen	149 yen	5 yen depreciation	7 yen depreciation	2 yen depreciation	140 yen	10 yen depreciation	1 yen depreciation
1 Euro=	144 yen	137 yen	156 yen	156 yen	159 yen	15 yen depreciation	4 yen depreciation	3 yen depreciation	151 yen	14 yen depreciation	1 yen depreciation

*1: Each figure represents comparisons with the midpoint in the sales revenue forecast range *2: Profit attributable to owners of parent – foreign exchange gain/loss *3: Operating profit + Depreciation and amortization

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First, let me discuss Q4. Please see the dark blue column in the middle. Revenue was JPY361.9 billion, gross margin was 56.4%, operating profit was JPY115.5 billion, operating margin was 31.9%, profit attributable to owners of parents was JPY98.2 billion, excluding exchange rate impact, JPY104.9 billion, EBITDA was JPY136.0 billion, and exchange rates were JPY149 to the US dollar and JPY159 to the euro. The comparison is described in the three columns on the right side of the page, and I will explain it again on a later page.

For the full term, see the dark blue column on the right. Revenue was JPY1,469.7 billion, gross margin was 57%, operating profit was JPY501.6 billion, a ratio of 34.1%, profit attributable to owners of parents was JPY432.9 billion, JPY424.4 billion excluding exchange rate impact, EBITDA was JPY581.9 billion, and exchange rates for the year were JPY140 to the US dollar and JPY151 to the euro.

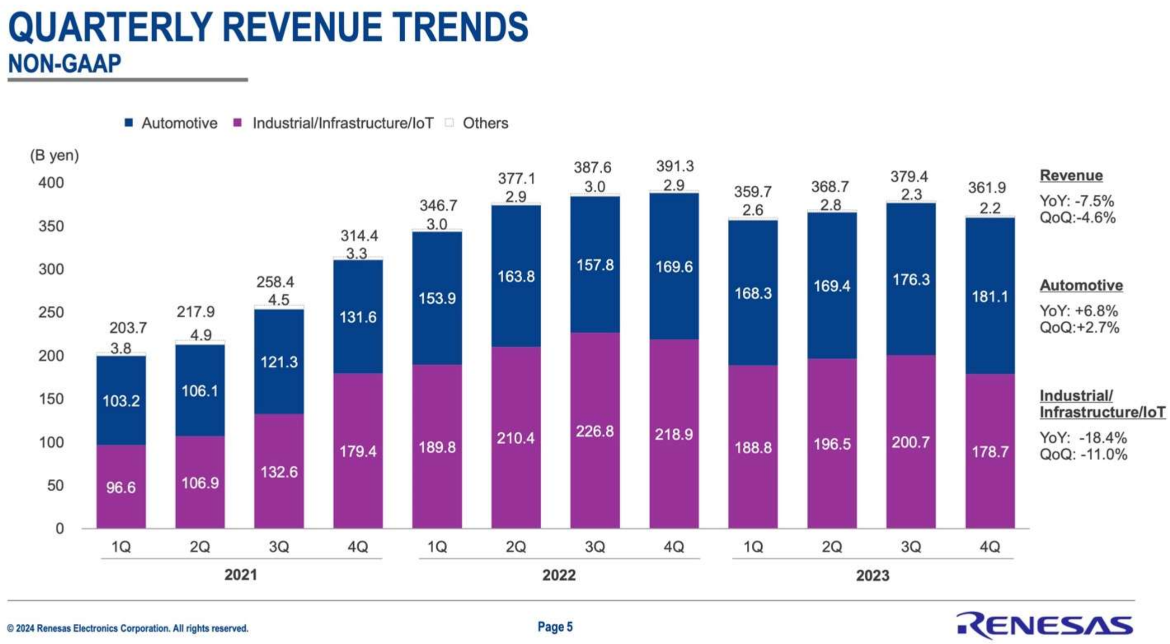
I would like to add a few comments on the full year, especially on the YoY comparison. As for the overall impression, Mr. Shibata has already told you.

As for revenue, the overall decline was 2.2%, primarily due to adjustments in this industrial, infrastructure, and IoT segment. Excluding foreign exchange impact, this 6.9% decrease in revenue is a positive result for automotive, and a significant negative result for industrial, infrastructure, and IoT.

The gross margin decreased by 0.5 percentage points mainly due to lower production recovery caused by lower capacity utilization.

The operating margin decreased by 3.1 percentage points due to increased R&D investment in development, mainly for SoCs for automotive applications and power semiconductors such as IGBT and SiC, as well as increased costs caused by general inflation.

Then, below that, there is a significant improvement in net income. One reason is that the change in the method of pooling among group companies has minimized the impact of foreign exchange gains and losses, which is why the results look profitable compared to last year. The other point is that with this change in the pooling method, we are earning interest income from US dollar deposits, deposits to Wolfspeed, interest income from that, and other income contributes.



Quarterly sales revenue trends. For Q4, see far right. Overall, revenue is down 7.5% YoY and 4.6% QoQ. Excluding foreign exchange impact, sales declined 8.1% in YoY and 6.6% in QoQ. The breakdown of the automotive and industrial/infrastructure/IoT applications is as follows.

4Q 2023 REVENUE AND GROSS / OPERATING MARGIN

NON-GAAP

	Automotive	Industrial / Infrastructure / IoT	Company Total
Revenue	181.1 B yen vs FCT: + QoQ: +2.7%	178.7 B yen vs FCT: - QoQ: -11.0%	361.9 B yen vs FCT: +1.1% QoQ: -4.6%
Gross Margin	51.9% QoQ: -0.9pt	61.2% QoQ: -1.7pts	56.4% vs FCT: +0.4pt QoQ: -1.5pts
Operating Margin	32.6% QoQ: -1.4pts	30.4% QoQ: -5.4pts	31.9% vs FCT: +1.4pts QoQ: -3.0pts

Operating Margin vs FCT +1.4pts

- ↑ **Revenue**
- ↑ **Gross Margin** vs FCT: +0.4pt
  - → Currency Impact
  - ↓ Product Mix
  - ↓ Production Recovery
  - ↑ Production Costs, etc.
- ↓ **Operating Expenses**

Operating Margin QoQ -3.0pts

- ↓ **Revenue**
- ↓ **Gross Margin** QoQ: -1.5pts
  - ↓ Currency Impact
  - ↓ Product Mix
  - ↓ Production Recovery
  - ↑ Production Costs, etc.
- ↑ **Operating Expenses**

This section discusses revenue, gross margin, and operating margin for Q4. First, regarding the entire company, please refer to the right side. Compared to the forecast, the operating margin was 1.4 percentage points higher. The median sales revenue was up about 1%, but this was mostly due to foreign exchange impact. Excluding foreign exchange impact, there was a change in the mix of contents, with automotive increasing from the forecast, while industrial, infrastructure, and IoT decreasing from the forecast, netting out to be almost in line with the forecast.

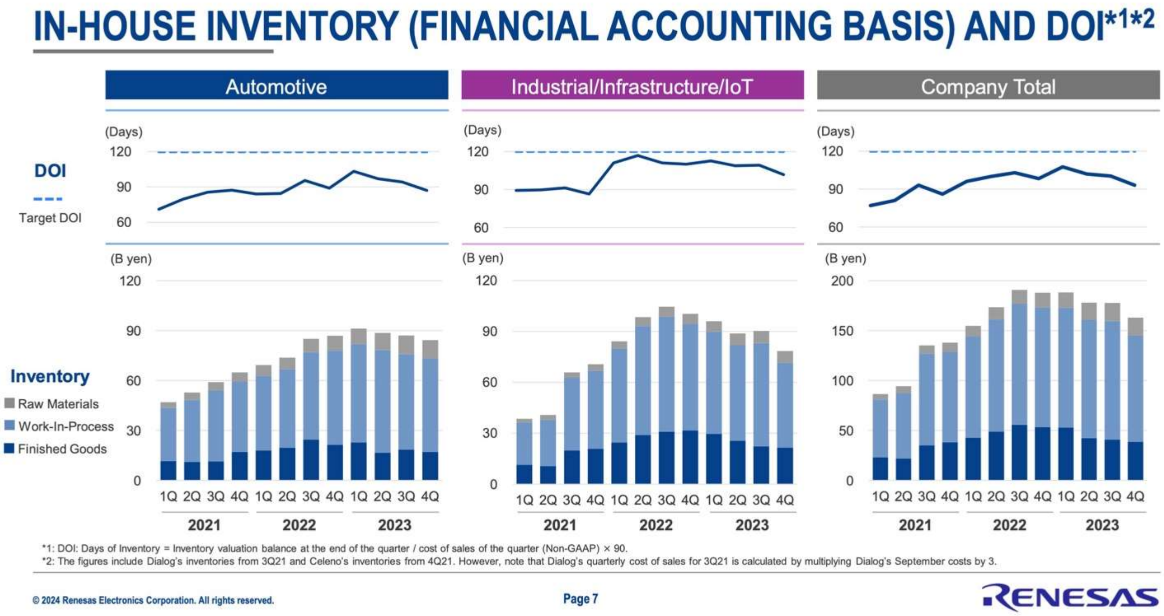
The automotive business was almost completely unaffected by the UAW strike, which was seen as a risk, while the industrial, infrastructure, and IoT business was negative due to adjustments, especially in the mass market, which continued to be a major factor.

As for the gross margin, it was slightly up 0.4 percentage points from the forecast, the exchange rate was flat, and the product mix deteriorated slightly due to the increase in automotive and the decrease in industrial, infrastructure, and IoT, as I mentioned earlier. Production recovery has deteriorated due to slightly lower than expected production capacity utilization for production adjustments.

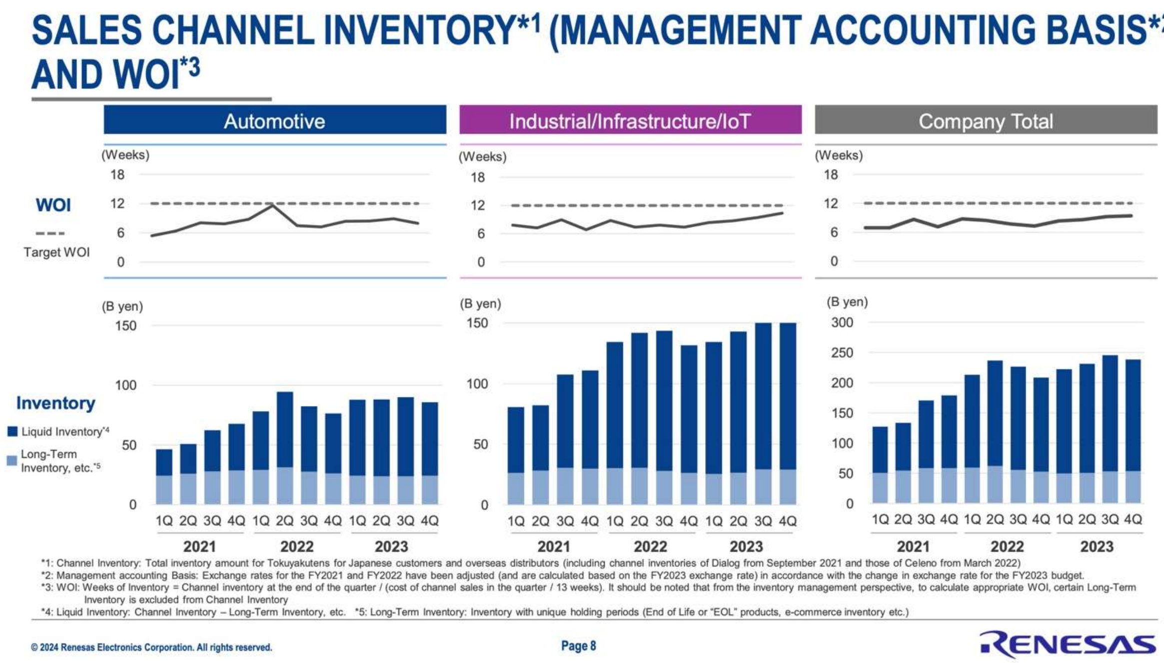
On the other hand, the final result was slightly positive due to lower expenses and the absence of inventory write-down costs and other positive factors. The last is operating expenses, which are slightly lower than forecast, mainly in R&D.

This lower right side QoQ was followed by a 3-point decline in the operating margin. The contents of the gross margin are generally in the same direction as the discussion of the forecast ratio, with the main factors being an increase in automotive, a deterioration in the mix due to a decrease in industrial, infrastructure, and IoT, and then a decrease in production recovery due to a decrease in capacity utilization. Regarding operating expenses, both R&D and SG&A increased in Q4 due to the concentration at the end of the fiscal year.

On the left, by segment. In the gross margin QoQ, the gross margin for the automotive segment was slightly negative in the QoQ due to a deteriorating mix within the segment and the impact of production adjustments, despite an increase in revenue. On the other hand, the operating margin for industrial, infrastructure, and IoT was affected by the decline in sales, resulting in a significant decrease as a profit margin.



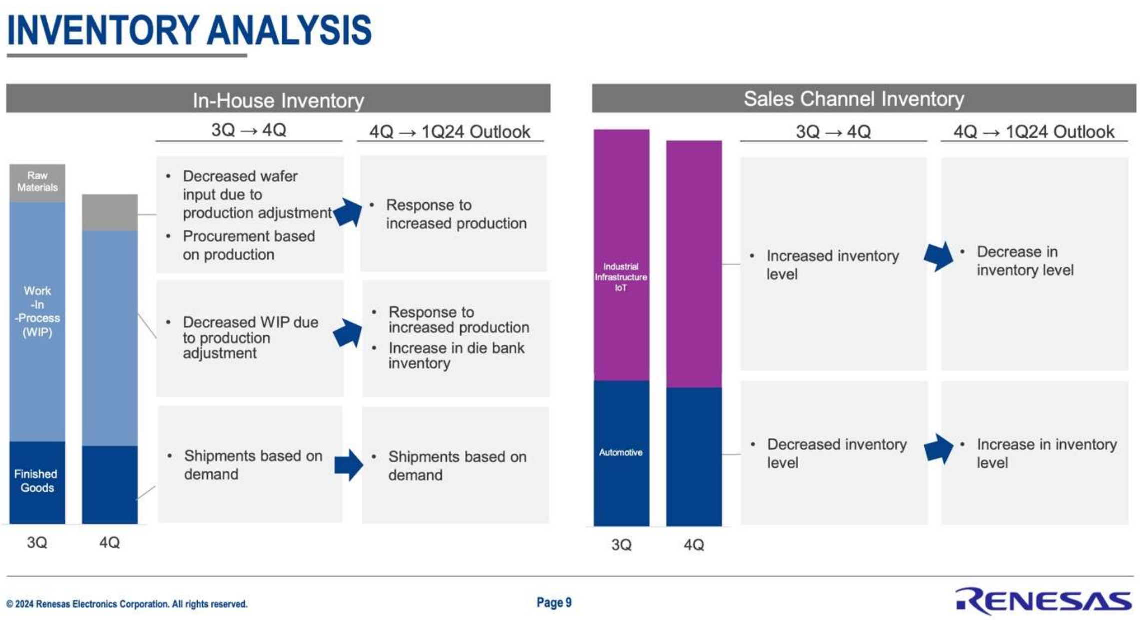
In-house inventory. Overall DOI decreased in QoQ to 93 days at the end of Q4. The actual value of both automotive and industrial/infrastructure/IoT, and then DOI, has also decreased.



Sales channel inventory. Overall, there was a slight increase in QoQ to just over nine weeks. Automotive decreased, almost eight weeks, while industrial/infrastructure/IoT increased, just over 10 weeks.

We had initially expected an increase in the automotive sector, but the inventory level decreased as a result of strong pullback on the customer side, mainly due to the minor impact of the UAW as mentioned earlier.

Industrial, infrastructure, and IoT results were in line with our expectations, but the decrease in sell-throughs to the mass market, as well as the decrease in sell-ins, resulted in a slight increase in terms of this level of holdings, almost as expected.

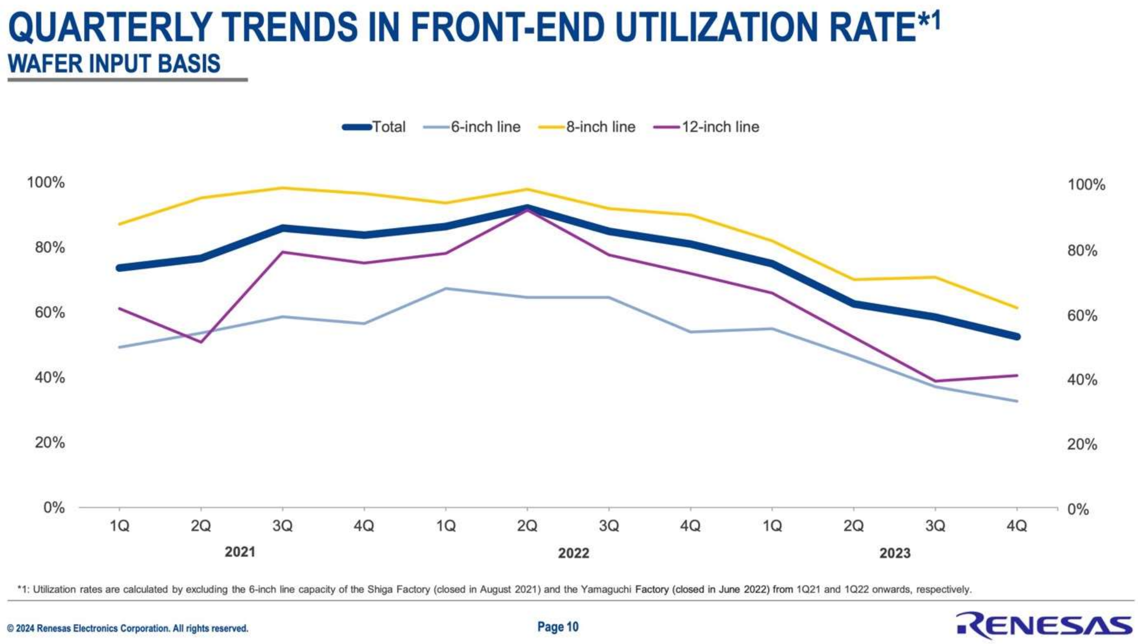


Factors contributing to the increase/decrease in in-house and sales channel inventories. First, with regard to our inventory on the left side, if we speak of the Q3 to Q4 portion, we have slightly increased the scope of production adjustment from the time of our forecast. In particular, we have increased the scope of adjustment slightly with respect to general-purpose MCUs and products mainly for the mass market, in light of the demand forecast mentioned earlier. Accordingly, work in process decreased, and then finished goods decreased slightly, as we shipped in response to demand without prior production, etc.

For Q1, we plan to slightly increase production in anticipation of a recovery from Q2 onward. In addition to that, we will start stacking die banks of 40 nano MCUs and automotive MCUs at the Naka plant. As a result, both raw materials and work in process are expected to increase for Q1.

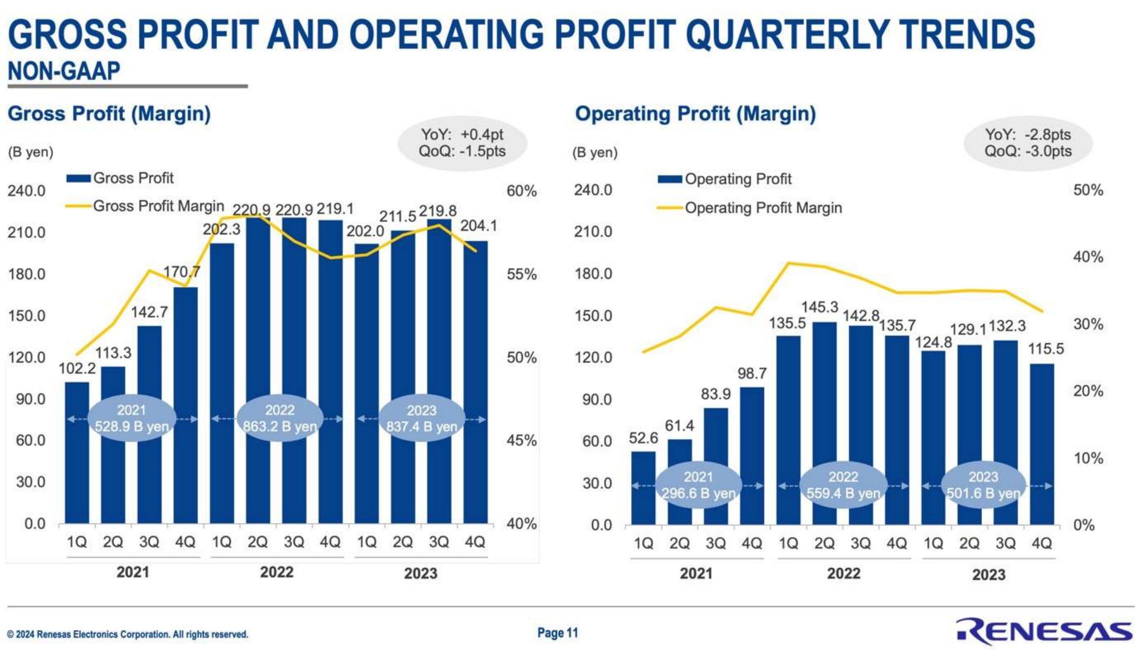
On the right, is the channel inventory. As for Q4, I mentioned earlier. For Q1, automotive is expected to increase in level, as we replenish the decrease in Q4.

On the other hand, we expect a slight decrease in industrial, infrastructure, and IoT, with shipments based on demand. However, we are considering a policy of not reducing it too much based on the situation ahead.

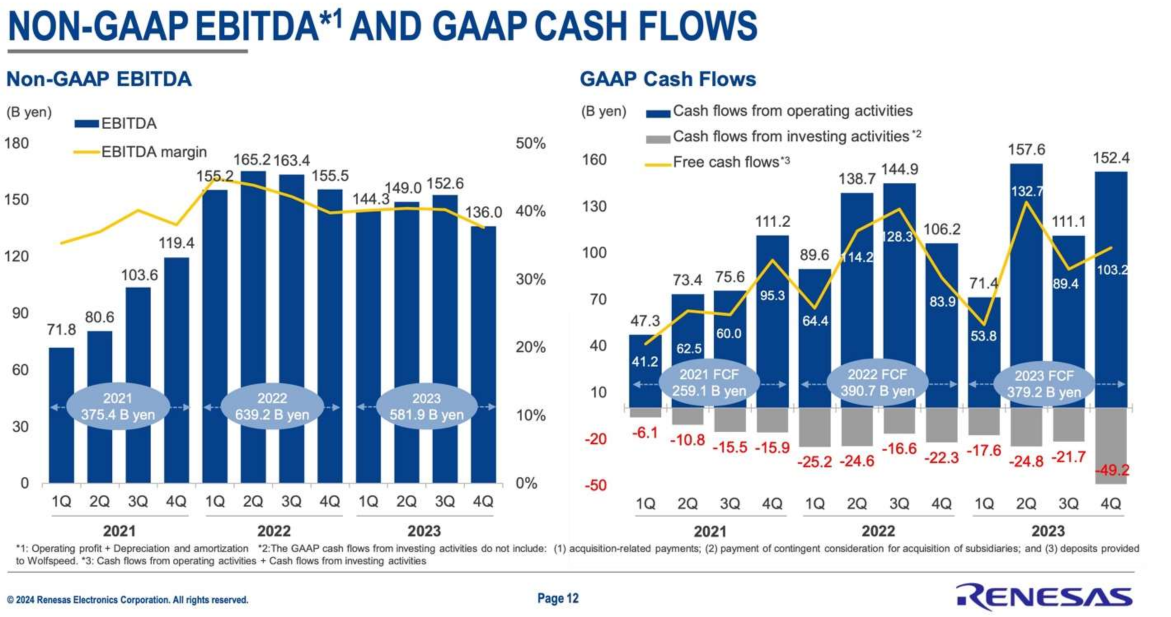


This is about utilization rates. It is the utilization rate based on the wafer input volume. Q4 was slightly lower than expected at just under 55%.

For Q1, we expect an increase from this point. As I mentioned earlier, increased production for Q2 and production of die banks at the Naka Plant are expected to contribute to this increase.



These are gross margin and operating margin. Please see for reference.



EBITDA and free cash flow. Free cash flow and cash flow in the right-hand graph exclude the impact of providing deposits to Wolfspeed.

Operating cash flow in Q4 was JPY152.4 billion and free cash flow was JPY103.2 billion. The difference from Q3, which I would say is almost steady, is due to tax payments and bonus payments.

1Q 2024 FORECAST
NON-GAAP

(B yen)	2023		2024		
	1Q (Jan-Mar)	4Q (Oct-Dec)	1Q (Jan-Mar) Midpoint Forecast (Range)*1	YoY	QoQ
Revenue	359.7	361.9	345.0 (±7.5)	-4.1% (±2.1pts)	-4.7% (±2.1pts)
(Excluding Foreign Exchange Impact)	-	-	-	-8.4%	-2.9%
Gross Margin	56.2%	56.4%	55.0%	-1.2pts	-1.4pts
Operating Margin	34.7%	31.9%	30.0%	-4.7pts	-1.9pts
1 US$ =	133 yen	149 yen	142 yen	9 yen depreciation	7 yen appreciation
1 Euro=	142 yen	159 yen	155 yen	13 yen depreciation	4 yen appreciation

*1: Each figure represents comparisons with the midpoint in the sales revenue forecast range

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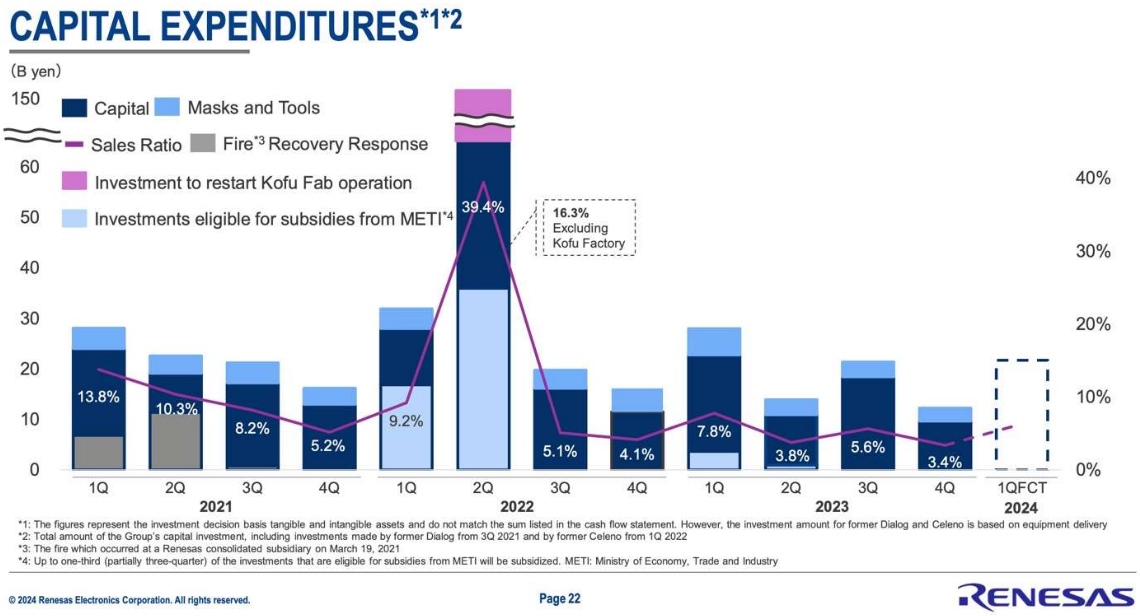
This is the forecast for Q1 of FY2024. Please see the dark blue column in the middle. The median sales revenue is JPY345 billion, and if we speak in terms of QoQ, the two to the right of that is minus 4.7%. Excluding foreign exchange impact, it is minus 2.9%.

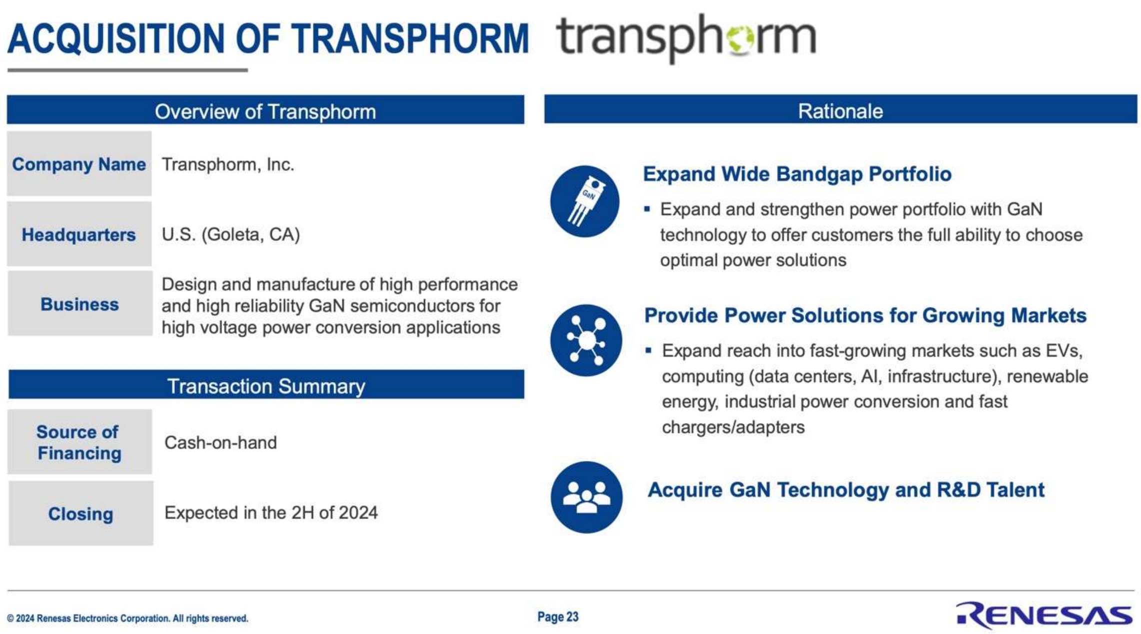
In terms of the contents, we expect a slight increase in the automotive sector, a decrease in the industrial, infrastructure, and IoT sectors, and a decrease in the net.

This is followed by 55% for gross margin and minus 1.4 percentage points for QoQ. The main factors are expected to be a deterioration in the product mix due to a change in the sales mix, and an increase in manufacturing and other costs, including start-up costs for the Kofu Plant. On the other hand, production recovery is expected to improve slightly due to increased capacity utilization but is expected to be negative in total.

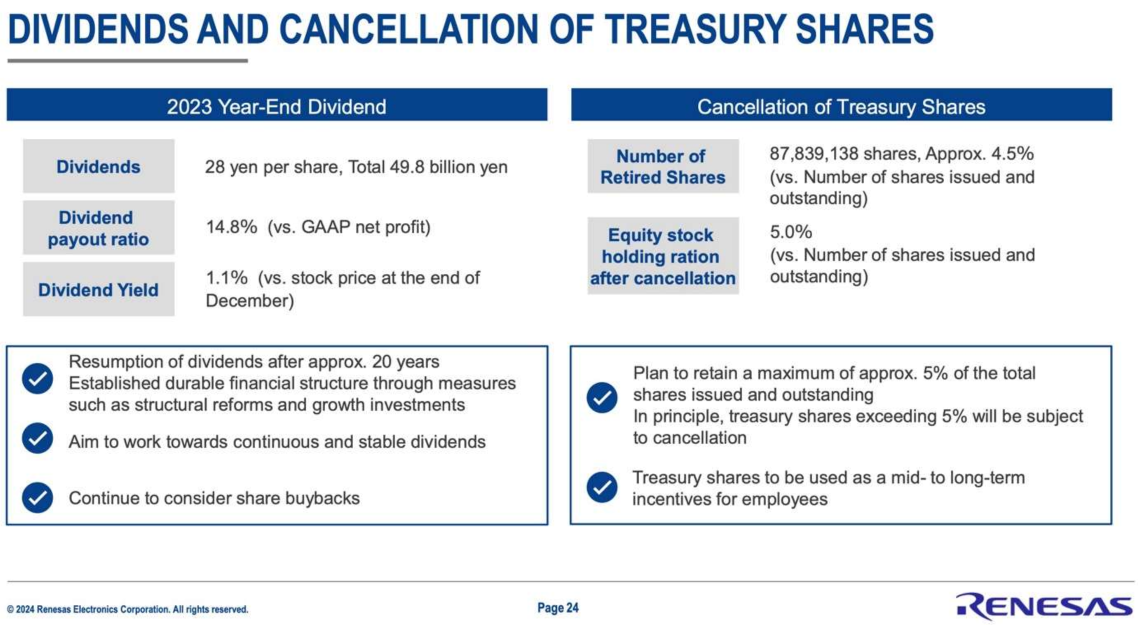
The operating margin is assumed to be 30%, and the exchange rate assumptions are JPY142 to the US dollar and JPY155 to the euro.



Appendix. Capital investment. In Q4, we executed investments at 3.4% of revenue, mainly R&D-related investments. For Q1, we expect a single-digit percentage of revenue.



We are pleased to announce that we have acquired a company called Transphorm.



Dividends and cancellation of treasury stock. On the left, the Company has decided to pay a dividend of JPY28 per share, for a total of JPY49.8 billion. We will continue to work toward continuous and stable dividend payments.

On the right side, regarding the cancellation of treasury stock, we have now clarified our treasury stock holding policy and decided to partially cancel treasury stock. The maximum holding is set at approximately 5%, and in principle, the excess will be cancelled. The 5% portion is intended to be used for medium- to long-term incentives for employees and stock-based compensation.

This concludes my explanation.

Question & Answer

[Questioner 1]

Q: First, as Mr. Shibata introduced at the beginning of this presentation, I would like to ask you to tell us about the Q1 movements of the markets for automotive, industrial, infrastructure, IoT, and each semiconductor, and the outlook for 2024, including the timing of reversal.

Secondly, we have noticed that the supply-demand balance for semiconductors has been changing, and we would like to know how the prices of semiconductors are changing in two categories, automotive and non-automotive, which have been firm for a long time.

A: As for automotive in Q1, our view is that they are about flat compared to the Q4. As Shinkai mentioned earlier, the Q4 saw a stronger-than-expected performance of end products, probably due to a production push by some customers. However, since Q1 includes the Chinese New Year, the underlying tone is firm, but the QoQ is expected to be flat.

As for our sales, we expect them to grow a little bit because we need to build up a little more inventory in the channel, which I mentioned earlier. The keynote is that we currently expect that after this, Q2 and beyond will not change that much, and the overall car production itself is planned to be almost flat, for now.

I also believe that content growth will continue to grow at a double-digit rate, although perhaps a little slower than before. So, although there is a headwind for some EVs and the Chinese market is becoming very competitive, we believe that the overall trend will remain strong.

For industrial, infrastructure, and IoT, inventory adjustments began a bit later than in other segments and are continuing in the industrial and mass markets, as well as the Japanese market in particular. I assume that it will probably continue like the bottom of a U-shape until Q1, or possibly Q2, and then recover from about H2.

Also, as I mentioned before, PC has already hit the bottom, so I think the curve will go up and down with market cyclicality, up toward the second and Q3, and then down again in Q4.

The rest is at the data center and AI. However, sales here are still small for us, at most 2% or 3% of total company sales, we believe that this segment will grow very strongly, and if we can successfully launch products and catch up with production, it will strongly support IIoT sales in its own way.

As for prices, we are not seeing such a big gap between automotive and other products at the moment, but as you guessed, the upward trend in prices up to last year is expected to reverse this year. We do not anticipate such a large price decline, but the competitive environment has changed considerably, and we expect a trend toward price reductions this year.

Q: One last question: I know that price reductions usually happen, but can we now assume that the price reduction impact will be enough to offset the impact on gross margins, improvements in productivity, etc., and their volume, etc.?

A: I don't know if we can offset the whole thing, but I think we can do it so that the gross margin does not go down significantly, from your perspective. This year, there will be a slight increase in depreciations and other factors in anticipation of the plant coming online, so there will be challenges, but the current outlook is that there will not be a drop that will surprise you.

[Questioner 2]

Q: I have one major point. You explained that the utilization rate will increase from Q1, but I would like to know specifically how much the utilization rate will increase from Q1 and, if possible, what is your view of the utilization rate from Q2 onward, which is the first part of the breakdown.

As the second part of the breakdown, Mr. Shibata just commented that the market for automotive semiconductors is expected to grow at a double-digit rate in 2024, and I was wondering if there are any materials in which your company will underperform or outperform the market, respectively. I would also like to know what the total is.

A: I will start with your second point, and Mr. Shinkai will answer the first one.

By and large, ADAS and EV sales are increasing in our vehicles, but they are still only about 15% of total vehicle sales. Therefore, although EVs are now in a slight adjustment phase, I believe the market will grow, especially for ADAS. However, since the single-digit percent portion of our overall car volume will grow significantly, I think it would be good to consider that the 85% portion of the car sales will be largely driven by other sources besides ADAS and EVs.

Therefore, although we expect firmness, I think the reality is that growth will have to be inferior in terms of the sense of comparison with competitors with large ADAS exposures or with large EV exposures.

Please, Mr. Shinkai, for the utilization part.

A: We expect utilization rates to increase generally by low single-digit percentage points from Q4 to Q1. We expect QoQ to increase by single-digit percentages in Q2 as well. However, there are technical factors, and as I mentioned a little earlier, the buildup of die bank at the Naka plant for 40nm MCUs will contribute, and this increase in production will contribute from March.

So, in a sense, the contribution to Q1 is one-third that of Q2, and the full contribution will come in Q2, which is the factor driving this gradual push up in the capacity utilization rate. Other than that, we expect some increase or decrease depending on demand.

Q: In the follow-up, Mr. Shibata mentioned ADAS and EVs. Do you think that the results of DINs acquired in the past will cause you to move differently from the market with respect to the market?

A: As for ADAS, I think it will start up smoothly as I have told you so far, so I think you should take it as no surprises, for better or worse. I believe that many people are interested in EVs, but the market environment has changed considerably over the last year, especially in China, and we expect the IGBT market to be more difficult this year than previously expected.

So, in terms of IGBT, I don't think the movement will be that different from the competition outside of China, but compared to the competition that is now fighting mainly in SiC, I think it may appear to be slowing down a bit.

However, in terms of the products that we plan to manufacture and deliver at the Kofu Plant, applications, and customers, we are fortunate that we do not expect to be greatly affected by changes in the environment in China. So, there may be some stakes and pullbacks, but I don't see the conversation diverging that much and I think that Kofu will start up and the IGBT business will start up as well.

[Questioner 3]

Q: First, at the automotive area, you also mentioned at the last briefing that the end of December is for Europe and the end of March is for Japan-affiliated end-of-term adjustments, and please summarize the movement by region, how that has resulted in what is happening now.

We are often asked questions such as, "compared to overseas semiconductor and automotive companies, your company's performance is much stronger," and this may be due to differences in contracts, inventory, etc. However, we would appreciate it if you could tell us again how your company sees the stability and resilience of automotive companies. I would appreciate it if you could tell me again what you see from your company's point of view.

A: I don't want to sound too hasty, but as I have said before, we are communicating very well with our customers, given the tight situation at the coronavirus disaster. Therefore, we have been taking the stance, especially since the beginning of last year, asking them not buy things that are not really necessary, but rather we will deliver the things that are necessary. I believe that customers have a certain level of trust in the Company and purchase what they need.

We are often asked about inventory adjustments for automotive, but this has not changed that much from the past, and there is no uniform inventory adjustment or under-stocking based on, for example, region or segment, or anything like that. However, the same as before, we continue to adjust very spotty inventory of a particular product at a particular customer, by overshooting up or overshooting down inventory.

Looking at the overall picture, individual demands fluctuate, but the overall feeling is that shipments are in line with demand, and we see what we ship as being used as it is. Therefore, as long as the automobile market remains strong, we expect our sales to remain strong as well.

Q: At the end of March, did the end-of-term adjustments in the Japanese system show as much as your company feared?

A: It wasn't that big. Last year's Q4 was very strong, especially for Japanese clients. However, some customers have experienced, for example, production and shipping stoppages, so perhaps these effects may be felt a little toward the end of the fiscal year, but at this point we are not seeing any major regional trends at this time. I think there will be a Chinese New Year, but other than that, I don't think we are seeing a particularly significant sense of trend in automotive.

The industry is feeling quite strongly that the mass market will be squeezing its inventory considerably for March.

Q: The second big one is about capital allocation, dividends, and treasury stock. Now that you have made this official announcement, do you intend to raise the level of dividends a little more, for example, or will you maintain the dividend payout ratio at 14.8% and place more importance on the Company's own shares in a more flexible manner? The trend of sales by major shareholders may be involved, but I think there was a ranking of those areas, or perhaps last year they wanted to do the dividend first. Please give us a sorting process of what sort of ordering you would consider in the future.

A: I would like to raise the dividend steadily and a bit cautiously if possible. Share buybacks will be based on market conditions at the time and, of course, shareholder returns are important, but we will also make strategic investments, particularly in M&A. Therefore, I would like to keep a close eye on both, and depending on the situation at the time, prioritize share buybacks when they are available at attractive prices, and prioritize strategic investments when they are not.

Q: As a supplement, this may not be something I would ask your company, but do you feel that one way of thinking is to live with the idea of absorbing a major shareholder's sale through share buybacks? I don't think that happened much last year.

A: Of course, it is a possibility, but I am not so much focusing on it now.

[Questioner 4]

Q: I would like to ask two points from me as well. First, in response to your earlier question, you mentioned that inventory adjustment in the industrial and mass markets, or in Japan, started late and is still continuing, and I am particularly concerned about the industrial part of this.

I think that the Chinese economy itself is slowing down tremendously, but do you feel the slowdown from the Chinese market to the extent that your company has already felt the adjustment for industrial applications? In addition, what is your impression of the degree of progress in inventory adjustment in the industry and other mass markets?

A: That's right. In particular, I am very concerned about the impact of the Chinese economy on the first point, but it is difficult to distinguish how much of it is due to the slowdown in China and how much is due to inventory adjustments.

Therefore, I wonder if the adjustment will proceed as I mentioned earlier, with about Q1 or second quarter being the bottom of the pot. Rather than going up and up from April after the March closing, we are now seeing that customers will be a bit more cautious in their purchases and production. You can see that H2 will probably come back, as many people expect. That's how I feel.

I don't know what the progress of inventory adjustments is, but I see that it will not be all over in Q1, and that it will probably seep into Q2.

Q: Second, I would like to ask about the concept of numbers. One thing I would like to know is the sensitivity of the exchange rate in this Q1. In 2023, I believe you were actively hedging your currency exposure, but now in 2024, I would like to know how that currency hedging situation has changed and how much depreciation of the yen you will enjoy.

A: The hedging policy is the same in 2024 as in 2023, the US dollar, and then for 2024 we are also hedging the euro slightly. We set an upper and lower limit, so to speak, and we are implementing collar trading .

Regarding the first question about the impact of foreign exchange rates, for Q1, JPY1 change in the US dollar has an impact of JPY1.3 billion on sales, JPY600 million on gross profit, and JPY300 million on operating income. For euros, they are similarly JPY200 million, JPY200 million, and JPY100 million, respectively.

Q: Just to confirm, the hedges for 2024 have been weaker than those set for 2023, and the sensitivity you just mentioned is to changes outside of the hedges?

A: Sensitivity is within the hedge. As for the hedging rate, the yen is slightly weaker in 2024.

[Questioner 5]

Q: The gross profit margin, including the effect of foreign exchange rates, as shown on page 11 of the presentation materials, shows that the gross profit margin went up at the beginning of 2022, the gross profit margin went down, and then went up again. This appears to be influenced by the exchange rate, so while it does not appear to have much of an impact if we go by the level of response Mr. Shinkai gave us earlier, it appears that the exchange rate is contributing to the gross profit.

I don't mean to take your word for it, but, for example, the impact on gross profit would be only about JPY2.4 billion if we multiply the JPY600 million by four, which you just mentioned, JPY50 billion if the exchange rate moves JPY20. If I were to take this as a sense of reality, the bottom line has gone from JPY200 billion to JPY220 billion, so multiplying by four, it appears that the effect has been about JPY80 billion. Once again, it is the idea of currency exchange.

I know this is duplicative, but it's hard to tell because of the way the exchange rate has moved, but I would like to know if there is a sense of an increase in market share over the last year or if it's in a flat range, if there is a color in the product group. This is largely the first point on the exchange.

Second, since Transphorm was acquired, you now have three types of wide-gap and power semiconductors. Wide-gap semiconductors are getting quite a bit of attention and are being put to practical use, so I think they are becoming more interesting as a market. I would appreciate it if you could explain this area, including the markets you can expect to serve and your company's aims in this area.

A: If you look at 2022 and 2023, the impact of gross margin, especially in 2023, is not that large due to the impact of hedging and the large percentage of foreign currency in the cost of goods. For example, in 2023, this large QoQ change in gross margin is largely driven by inventory write-downs and other special factors that affect cost of goods sold, rather than by foreign exchange.

A: We do not have a particularly unusual idea for a wide band gap, but we are thinking of using SiC to address inverters, and GaN, as you mentioned, would be good for power supplies and chargers.

It's difficult, because as the technology matures, the market adoption will change, so I think it will be chicken-and-egg, but from a very layman's point of view, which is embarrassing, I think GaN has a lot of potential.

Of course, SiC has already started to be adapted to a large extent, so I think it is very strong in that sense, but considering the current way materials are made and how easy or difficult it is to process them, I hope that we can take a leadership role in expanding the applications of GaN beyond what we can see now.

It takes a little time, though. However, I have always thought it was a very challenging and exciting material, and I am very happy and looking forward to finally having the technology in my hands.

Q: I would like to get some color on the market share trends you mentioned earlier, even if it's just a firsthand look.

A: I wonder about market share, power in China is obviously already losing market share. Microcomputers, on a global basis, are likely to be quite tight, but I think automotive applications are firm, though. Except for automotive, we were able to take a fairly strong share of the market the year before last, so I am not surprised that there may be a slight reactionary decline.

However, rather than being structurally winning or structurally losing, there is a slight swing, and the overall feeling is that the microcomputer is almost maintaining the picture. Power is tough in China, he said. It is not appropriate to talk about SoC as a market share, as it depends on individual products and individual business negotiations, which can be quite spiky. The fourth-generation devices that I have been talking about will be launched from next year, and I think that we will be able to show you strong figures.

[Questioner 6]

Q: First, I would like to have detailed information about the product. I think your overall explanation was more like an application, but there are two things you mentioned: what specific products are you talking about when you say that data center and AI sales will grow?

Also, you mentioned that EVs and ADAS are still a small percentage of semiconductors for vehicles and cars, and that 85% is other than that. The first thing I would like to know is what kind of products are the mainstays of the 85%.

A: Data centers, AI, AI is primarily power. Power controller and power switch. Of course, other timing and various other items will naturally be sold for AI, but one item that will grow particularly noticeably is power.

In terms of data centers as a whole, as I have mentioned before, the conversion to DDR5, or rather the memory standard, is moving ahead. So, I think that the memory interface will have some ups and downs in the Quarter over Quarter but will grow steadily from last year to this year in the Year over Year. Therefore, I think it is generally correct to understand that the data center as a whole is about memory interface and power, especially when it comes to AI.

As for cars, microcontrollers continue to be the mainstay, with SoCs making up the rest. I am sorry to repeat the same thing over and over again, but the SoC market fluctuates greatly depending on individual products and business negotiations, but the trend is toward growth. I am hoping that the ratio of microcontrollers in the overall market will decrease even more.

Q: Secondly, I know that you always say that it is difficult to talk about the future, but around the end of last year, WSTS, for example, forecast that the global market would grow by 13.1% in 2024. In your opinion, Mr. Shibata, I would appreciate it if you could give me your opinion on whether it is likely to go to that level or not.

A: If we talk about semiconductors as a whole, that may be true. I am not sure, but just to clarify, we are not doing HBM separately. We are not working on things that will grow in reaction to the very large sinking last year, such as memory, and HBM, which will see huge volume due to generative AI, to begin with.

Therefore, in terms of our target market, we do not feel the strength of double-digit growth at the moment. I have such a good outlook that I hope it will somehow remain steady.

[Questioner 7]

Q: Short question, I think the effective tax rate for the full year was 20% this time around. The rate before that was 29%, which is relatively volatile, so I would like to ask, what effective tax rate should we be looking at in the future?

A: There were some temporary factors in FY2022, but in terms of the future, we are looking at about 20% in FY2023.

[Questioner 8]

Q: Transphorm, the company you decided to acquire, currently has a research and production system in Japan, but what are your plans for this system, and how do you intend to scale it up, such as whether you will produce GaN as a whole at other plants in Japan, or whether you will do it in-house? What are your current plans for scaling up?

The other is at the automotive. You mentioned earlier that your forecast is flat in Q1 and in QoQ, but I was wondering if this is stronger or weaker than your previous forecast, and if there is any impact of the strike on this area.

A: I don't see any particular change in my previous view on QoQ for automotive. I can't say anything about Gallium nitride yet because they are still in the future, but even at present, most of the research and development is being done in Santa Barbara. So, precisely because UC Santa Barbara is really one of the best sources of human resources in the world, probably the best in the world, for compounds, I think I would like to focus on that.

As for production, SiC is the same way, but of course we have our own factory, so I think it would be best if we can produce in our own factory in the future, although it will take some time.

[Questioner 9]

Q: The first point is a confirmation question. This is the power semiconductor section. SiC's, perhaps the situation is that the samples are being served, so after receiving feedback from the customers, is there any change in their thinking about the strategy going forward.

The second point is a big picture, but the tailwind has been there for the past several years, and that is where it just ended. Your company also underwent a change in personnel, probably the head of global sales, a few months ago. Therefore, I think that the year 2024 will be the year in which sales here and the competition will be decided, and the winners and losers against the competition will become rather clearly visible. Looking ahead to 2024 and beyond, I would like to know what your current sales strategy is, for example, the use of direct sales, distributors, etc., and what your thoughts and changes are there.

A: As for the question of channel or direct, we are working in firm partnership with the channel, and we are not thinking of bringing everything in-house at the moment, so there will be no major changes in that area.

However, the biggest point is not so much that it is a good year or a bad year in the short term, but rather that the efforts of the past several years have produced certain results, and I feel strongly about that. Therefore, in order to continue to invest from a more long-term perspective, we have just changed our organization from segment-based to technology-based and product-based since January of this year.

We are now beginning to see the budding effects of these efforts, and while in the past we would have had to duplicate development for both the automotive and industrial sectors, there is a growing consensus that it would be better to do both together. I believe that for the same number of human resources and money invested, the expected output will be much greater than before.

However, as we have indicated, it will be many years before the semiconductors we are working on now really show up in numbers, so there will be a bit of a time lag before you will feel it, but I think we are off to a good start.

Q: What about power semiconductors and SiC feedback?

A: Not so much specially, since we are still really in the early stages of the sample, many customers generally have good things to say about us. Many people comment that it is very good and should be put into mass production as soon as possible, so I think we need to listen to that while discounting it. So far, I would say that things are going very well.

Moderator: Thank you very much. This concludes the question and answer session. Finally, Mr. Shibata would like to offer his greetings.

Shibata: So, I think that the financial results clearly show the colors of the industry: automotive, which are firm, AI, which is expected to grow, industry and mass markets, which are now in the adjustment phase, and consumers and compute, which are already moving cyclically.

We will continue to carefully, but not too carefully, step on the gas pedal and the brake as we move toward H2, such as the operation of factories and the expansion of inventory. Thank you for your time today.

Moderator: That concludes the presentation of the financial results for Q4 of the fiscal year ending December 31, 2023. Thank you for your participation.

[END]