Third Quarter of the Year Ended December 31, 2022
Conference Call (Held October 26, 2022)
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 Renesas Electronics Corporation's Q3 FY2022 earnings call.

Simultaneous interpretation channels are available today. Click on the globe icon at the bottom of the screen and select the language accordingly.

Now, speakers, please turn on the video. In attendance at today's briefing are Hidetoshi Shibata, Representative Director, President, and CEO; Shuhei Shinkai, Senior Vice President and CFO; Takeshi Kataoka, Senior Vice President and General Manager of Automotive Solution Business Unit; and other staff members.

After the greeting from Mr. Shibata, Mr. Shinkai will give an explanation of the Q3 financial results, 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.

Now, Mr. Shibata, please turn on the microphone.

Shibata: Hello, everyone. This is Shibata.

I don't think there are many points of note in this financial statement because it is Q3. As Mr. Shinkai will provide more details later, the overall this Q3 is as expected. One point I would like to make is that the automotive end-market was a little stronger than expected, so we will have to replenish the automotive channel inventory a little over this Q4. We believe the bottom is solid.

On the other hand, outside of Automotive, we still feel that the market is clearly modulating from this Q3 to Q4. We feel that the weakness that I have mentioned in the past, centered around PC and mobile, is now expanding a bit to the periphery.

What I mean by peripheral is that we have provided an earnings guidance down QoQ to printers, PCs, and smartphones, with a little concern about not only the popular price range, especially in China, but perhaps also the high price range.

Compared to usual, it is a clear-cut fact that we provided the numbers in this year's guidance with a bit of concern. Mr. Shinkai will speak to you in more detail.

Please go ahead, Mr. Shinkai.

3Q 2022 FINANCIAL SNAPSHOT
NON-GAAP

(B yen)	2021		2022								
	3Q (Jul-Sep)	9 months (Jan-Sep)	2Q (Apr-Jun)	3Q (Jul-Sep) Forecast	3Q (Jul-Sep) Actual	YoY	QoQ	Change from Jul 28 FCT*1	9 months (Jan-Sep) Actual	YoY	Change from Jul 28 FCT*1
Revenue	258.4	680.0	377.1	384.0 (±4.0)	387.6	+50.0%	+2.8%	+0.9%	1,111.4	+63.4%	+0.3%
Gross Margin	55.2%	52.7%	58.6%	56.5%	57.0%	+1.8pts	-1.6pts	+0.5pt	58.0%	+5.3pts	+0.2pt
Operating Profit (Margin)	83.9 (32.5%)	197.9 (29.1%)	145.3 (38.5%)	132.5 (34.5%)	142.8 (36.8%)	+59.0 (+4.4pts)	-2.5 (-1.7pts)	+10.4 (+2.3pts)	423.7 (38.1%)	+225.8 (+9.0pts)	+10.4 (+0.8pt)
Profit Attributable to Owners of Parent	62.9	141.3	81.4	-	96.4	+33.5	+15.0	-	268.0	+126.7	-
Profit Attributable to Owners of Parent (Excluding Foreign Exchange Impact)*2	66.3	157.6	120.4	-	115.4	+49.1	-5.1	-	343.6	+186.0	-
EBITDA*3	103.6	256.0	165.2	-	163.4	+59.7	-1.8	-	483.8	+227.8	-
1 US$=	110 yen	108 yen	124 yen	135 yen	135 yen	25 yen depreciation	11 yen depreciation	0 yen depreciation	125 yen	17 yen depreciation	0 yen depreciation
1 Euro=	131 yen	129 yen	134 yen	138 yen	139 yen	8 yen depreciation	5 yen depreciation	2 yen depreciation	135 yen	5 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 loss
*3: Operating profit + Depreciation and amortization

Shinkai: I'm Shinkai, the CFO. The presentation will cover the details of the Q3 financial results, based on the documents.

First, a summary of the financial results. Please refer to the dark blue column in the middle regarding the Q3 results.

Revenue was JPY387.6 billion, gross margin was 57.0%, operating profit was JPY142.8 billion, operating margin was 36.8%, and profit attributable to owners of parent was JPY96.4 billion. Excluding foreign exchange impact, profit attributable to owners of parent was JPY115.4 billion, EBITDA was JPY163.4 billion, and foreign exchange rates for the period were JPY135 to the US dollar and JPY139 to the euro.

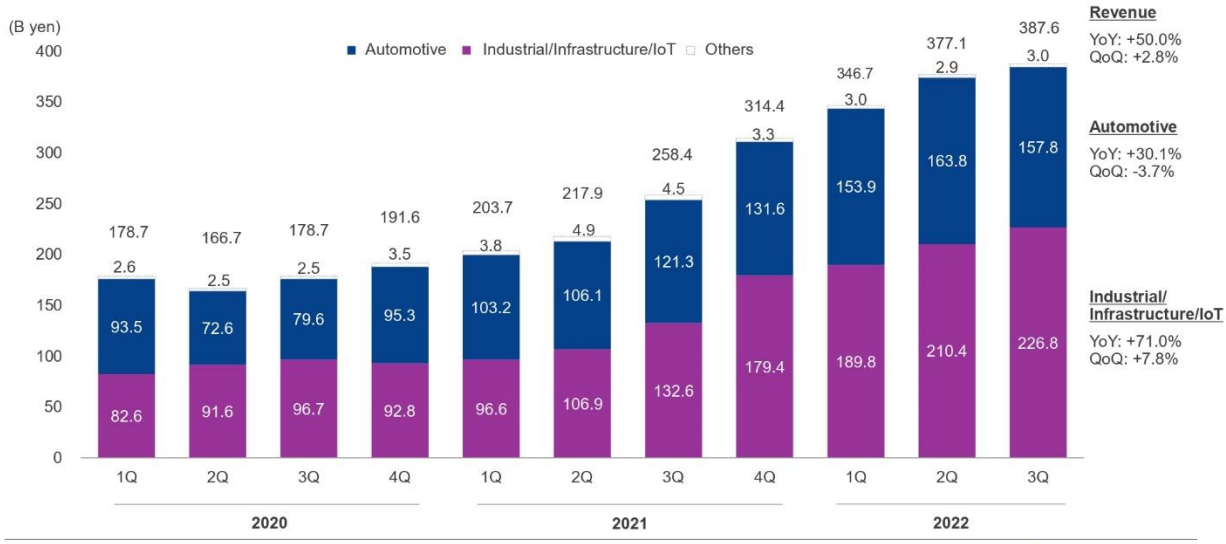
The comparison with last forecasts are shown in the third column to the right of this and will be explained later. Also see the dark blue column on the right for the cumulative nine months.

One point to note here is that, once again, we showed a profit attributable to owners of parent excluding foreign exchange impact. The effect of foreign exchange gains/losses is excluded here to show the steady-state level of profit attributable to owners of parent. As explained in the previous earnings announcement, we utilize dollar-denominated intercompany loans for cash pooling, and the foreign exchange gains/losses on these intercompany loans are included in financial expenses on a consolidated basis. If the yen depreciates compared to the end of the previous quarter, it will be recognized as a net loss on the P&L.

However, we are considering ways to reduce this foreign exchange exposure and will specifically review the pooling method. We are aiming to complete this by the end of this year. Therefore, although the foreign exchange loss itself is expected to continue until Q4, the impact of the loss is expected to be minimal from next year.

As for the impact in Q4, a JPY1 change has an approximate impact of JPY3 billion on profit and loss. A weaker yen means the loss impact and a stronger yen means the profit impact.

QUARTERLY REVENUE TRENDS
NON-GAAP



Next page shows quarterly revenue trends.

See far right for Q3. Overall, sales increased 50% YoY and 2.8% QoQ. The breakdown is as follows: on a QoQ basis, revenue in Automotive was negative 3.7%, and revenue in Industrial/Infrastructure/IoT was positive 7.8%.

3Q 2022 REVENUE AND GROSS/OPERATING MARGIN
NON-GAAP

	Automotive	Industrial / Infrastructure / IoT	Company Total
Revenue	157.8 B yen vs FCT: + QoQ: -3.7%	226.8 B yen vs FCT: + QoQ: +7.8%	387.6 B yen vs FCT: +0.9% QoQ: +2.8%
Gross Margin	49.3% QoQ: -2.8pts	62.7% QoQ: -1.4pts	57.0% vs FCT: +0.5pt QoQ: -1.6pts
Operating Margin	31.5% QoQ: -4.8pts	40.3% QoQ: +0.2pt	36.8% vs FCT: +2.3pts QoQ: -1.7pts

Operating Margin vs FCT +2.3pts
- Revenue
- Gross Margin vs FCT: +0.5pt
  - Currency Impact
  - Product Mix
  - Production Recovery
  - Production Costs, etc.
- Operating Expenses

Operating Margin QoQ -1.7pts
- Revenue
- Gross Margin QoQ: -1.6pts
  - Currency Impact
  - Product Mix
  - Production Recovery
  - Production Costs, etc.
- Operating Expenses

The following are the details of revenue and other information for Q3.

First, starting with the company total, please refer to the upper right corner for the change against the forecast. As I mentioned earlier, revenue was 0.9% above the median forecast and JPY3.6 billion above the actual amount. About one-third is due to exchange rate effects and two-thirds to non-exchange rate effects. In terms of segments, the revenue increase was mostly in Industrial/Infrastructure/IoT.

The profit margin was 0.5 percentage points higher than the forecast, and the foreign exchange had a slightly positive impact. Regarding foreign exchange, we are hedging our currency exposure with the idea that we will give up the upside from the yen's depreciation to solidify our dollar-yen floor in order to prepare for the risk of a stronger yen in the future. Thus, the upside to gross margin from a weaker yen is now limited.

Product mix improvement was slightly positive, and this was mainly due to increases in Industrial/Infrastructure/IoT. Production recovery and production costs increased or decreased but were generally in line with forecasts.

On the other hand, operating expenses were JPY6.4 billion lower than expected. R&D and SG&A both decreased from the forecast. As a result, the operating margin increased by 2.3 percentage points from the forecast.

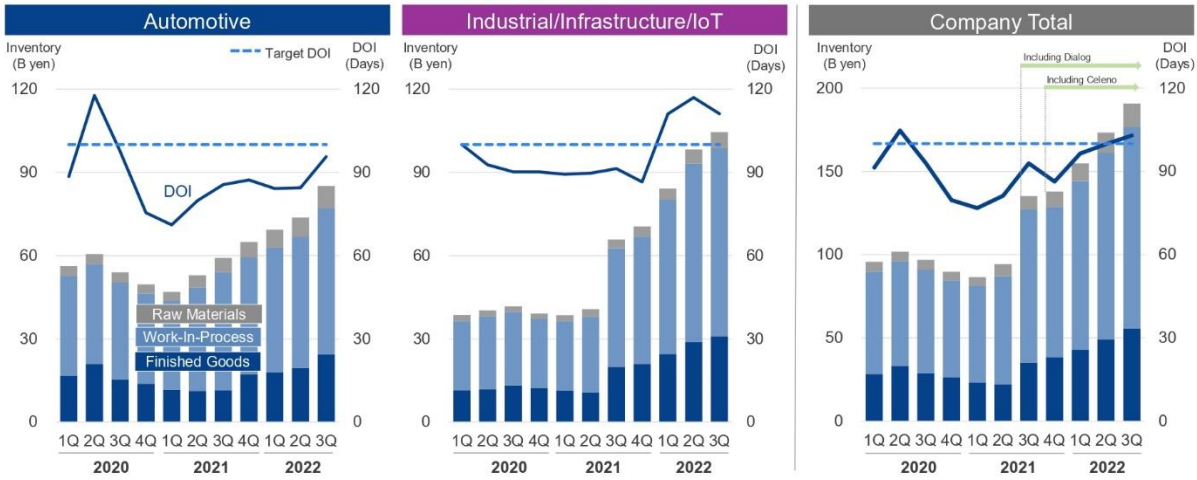
Next, please look at the lower right-hand side for the QoQ comparison. Operating margin was negative 1.7 percentage points on a QoQ basis. Foreign exchange effects had a positive impact on revenue, while excluding foreign exchange effects, revenue was negative. This means negative in Automotive and positive in Industrial/Infrastructure/IoT.

The gross margin was negative 1.6 percentage points QoQ. Foreign exchange rates were slightly positive as in mentioned, and the product mix was similarly positive due to an increase in Industrial/Infrastructure/IoT. Production recovery decreased due to a slight decrease in production and operation, mainly in back-end processes. Thus, the gross margin deteriorated by 1.6 percentage points QoQ. Operating expenses increased in R&D and resulted in a JPY2.5 billion increase.

Then, by segment. Please refer to the left side. I would like to add a few comments about the difference in movement between segments in terms of QoQ changes in gross margin and operating margin.

As for the gross margin, the impact of reduced production recovery makes a larger contribution to gross margins in Automotive, where the ratio of in-house manufactured products is relatively high. Regarding the operating margin in particular, we have changed the calculation method for the amount of bonus reserve paid to employees from this Q3 and 2H. Until 1H, it was uniformly stipulated company-wide, but from 2H, allocations are made for each business segment. Therefore, the QoQ results show a slight deterioration in Automotive and a slight improvement in Industrial/Infrastructure/IoT. Overall, the impact is neutral.

IN-HOUSE INVENTORY (FINANCIAL ACCOUNTING BASIS) AND DOI*1*2



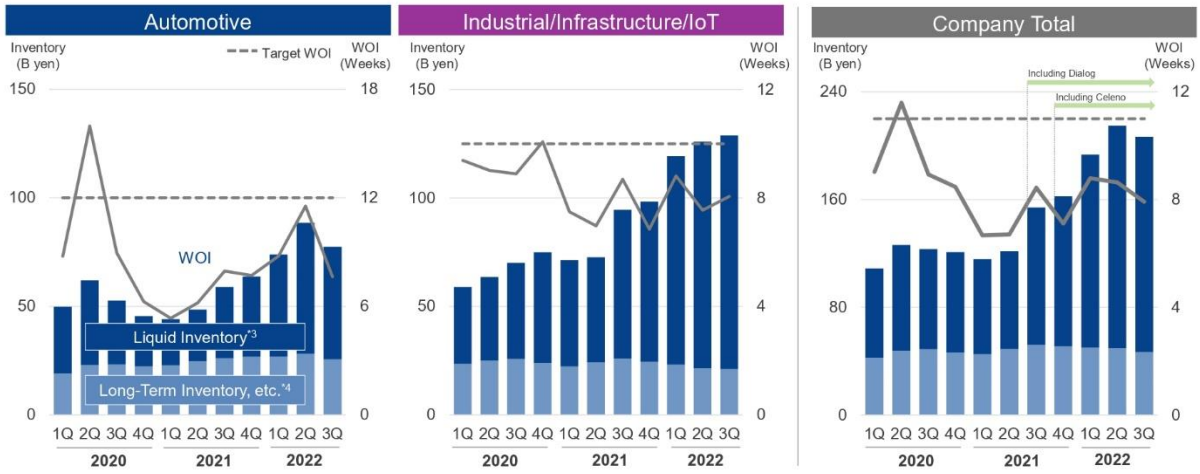
*1: DOI: Days of Inventory = Inventory valuation balance at the end of the quarter / cost of sales of the quarter (Non-GAAP) × 90.
*2: The figures include Dialog's inventories from 3Q21 and Celeno's inventories from 4Q21. However, note that Dialog's quarterly cost of sales for 3Q21 is calculated by multiplying Dialog's September costs by 3.

Next, I would like to show the status of inventory. Later in this presentation, we will explain the factors behind the QoQ increase and decrease and our outlook for the future.

First, as for our in-house inventory, if you look at the right side, the overall DOI (Days of Inventory) is up QoQ, up in Automotive, and down in Industrial/Infrastructure/IoT.

The increase in Automotive is mainly due to die bank and advanced purchase orders, especially for work-in-process, and advanced production for finished goods. I will talk more about this later.

SALES CHANNEL INVENTORY*1 (MANAGEMENT ACCOUNTING BASIS) AND WOI*2

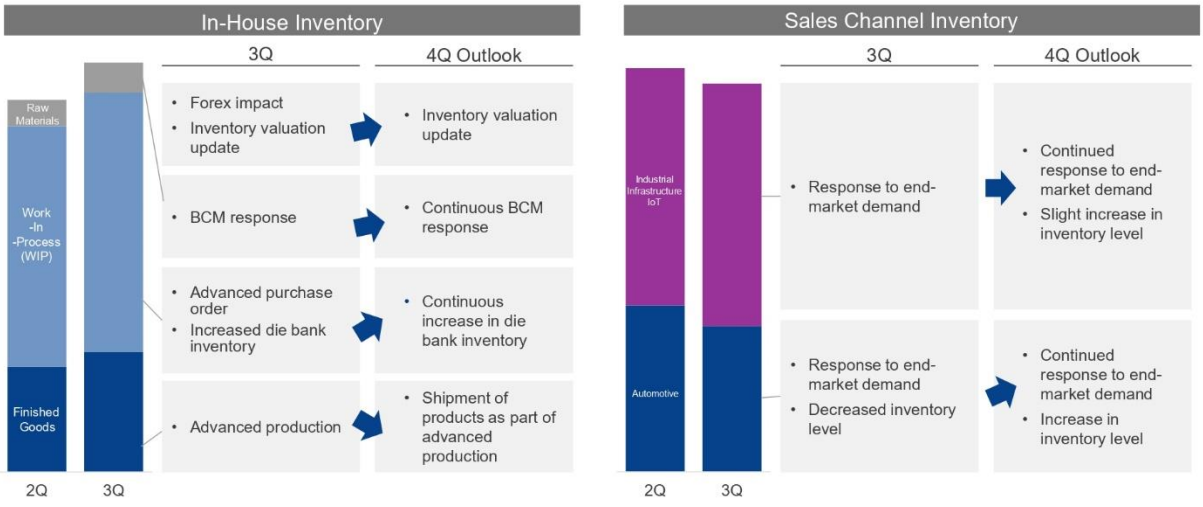


*1: Channel Inventory: Total inventory amount for Tokuyakutens for Japanese customers and overseas distributors (including channel inventories of Dialog from September 2021 and those of Celeno from March 2022)
*2: WOI: Weeks of Inventory = Channel inventory at the end of the quarter / (cost of channel sales in the quarter / 13 weeks). It should be noted that from the inventory management perspective, to calculate appropriate WOI, certain Long-Term Inventory is excluded from Channel Inventory
*3: Liquid Inventory: Channel Inventory – Long-Term Inventory, etc. *4: Long-Term Inventory: Inventory with unique holding periods (End of Life or "EOL" products, e-commerce inventory etc.)

Next, this page shows the sales channel inventory and WOI (Weeks of Inventory).

As you can see on the right side, the overall WOI have decreased QoQ. The result was a decrease in Automotive and a slight increase in Industrial/Infrastructure/IoT.

INVENTORY ANALYSIS



The following is an analysis of the factors behind the increase or decrease.

First of all, starting with our in-house inventory on the left, about 30% of the increase in the actual amount in Q2 and Q3 was due to the impact of foreign exchange, and about 10% was due to the impact of accounting valuation.

As for raw materials, as a BCM response, we order raw materials with supply risks in advance, for example, wafers, substrates, maintenance parts, and others. This response is expected to continue in this Q4, with a slight increase in raw materials.

Then, as for work-in-process, in Q3 we were placing advanced purchase orders and expanding our die bank. As I mentioned last time, advanced purchase orders are for products that are expected to ramp up over the next year, mainly automotive SoCs and other products. As for the die bank, we are building it especially with internally manufactured products, in an attempt to respond to BCM. We are in the process of expanding in legacy products, but not yet enough in growth products.

For the work-in-process portion, we plan to expand the die bank in Q4 for the same shortfall. Therefore, we expect this work-in-process to increase, especially in Automotive.

On the other hand, in Industrial/Infrastructure/IoT, we started reducing wafers in response to demand, but there will be a slight delay in the manufacturing lead time, so there will be a temporary increase in Q4. We plan to optimize after that.

Next, the finished goods. In Q3, in attempt to respond to reduced operating days in Q4, we implemented advance production in Q3. In Q4, we expect that this inventory itself will decrease as a result of advance shipments, mainly in Automotive.

Next, the channel inventory on the right. Common to both segments, we continue to respond to the end-market demand trends in both Automotive and Industrial/Infrastructure/IoT. It means taking prudent steps to avoid the disappearance of future demand.

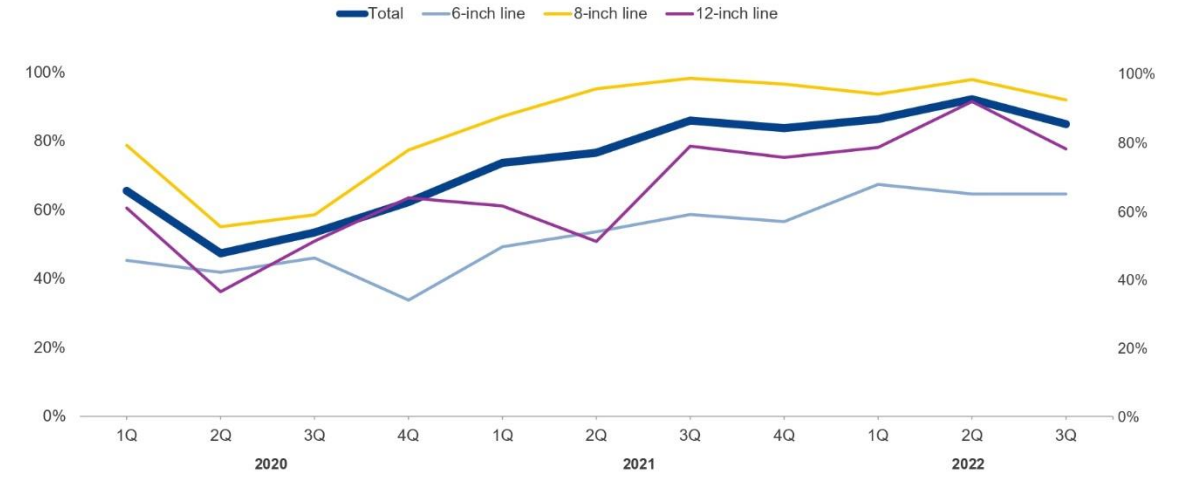
From this perspective, as we discussed in our previous financial results, we have taken the action of reducing sell-in for Automotive in Q3.

Specifically, in Q3, we took measures to meet the end-market demand first from Industrial/Infrastructure/IoT, and end-market demand itself was flat QoQ, while inventory levels were also generally flat. In Q4, we will continue to respond to the end-market demand in the same manner. However, the end-market demand itself is expected to decrease QoQ, and therefore, we expect a slight increase in WOI holding levels.

Next, with regard to Automotive, once the expansion to the expected inventory level was completed at the end of Q2, we decided to hold the level in Q3. As a result, this WOI was lower than expected, partly due to slightly stronger-than-expected growth in the end-market demand.

In Q4, we will continue to operate with the idea of returning the slightly excessive reduction in Q3 while carefully watching and responding to this end-market demand and continuing shipments. Therefore, we expect WOI to increase QoQ.

QUARTERLY TRENDS IN FRONT-END UTILIZATION RATE*1
WAFER INPUT BASIS



*1: Utilization rates are calculated by excluding the 6-inch line capacity of the Shiga Factory (closed in August 2021) and the Yamaguchi Factory (closed in June 2022) from 1Q21 and 1Q22 onwards, respectively.

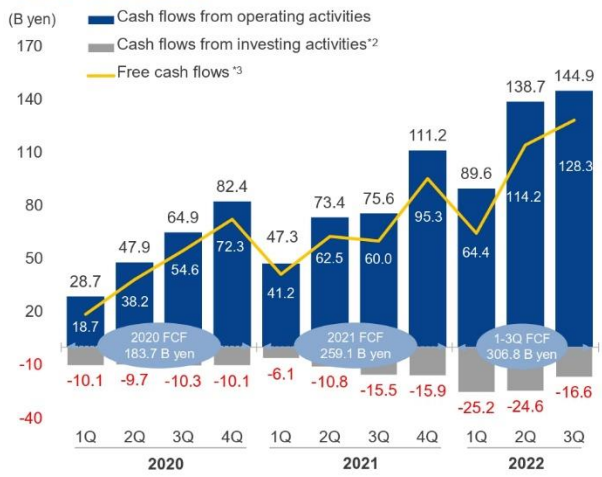
Next, let's look at utilization rates.

In Q3, the utilization rate on the wafer input basis was about 85%. In Q4, we expect a slight decrease from this point. We plan to perform scheduled maintenance at each of our factories during the year-end and New Year's holidays, thus reducing the number of these operating days. Therefore, we expect this input-based utilization rate to also drop slightly in Q4.

NON-GAAP EBITDA*1 AND GAAP CASH FLOWS

Non-GAAP EBITDA

GAAP Cash Flows



*1: Operating profit + Depreciation and amortization *2: The figures exclude acquisition-related payments *3: Cash flows from operating activities + Cash flows from investing activities

Next, although there is nothing of particular note here, in Q3, EBITDA was JPY163.4 billion, operating cash flow was JPY144.9 billion, and free cash flow was JPY128.3 billion.

4Q 2022 FORECAST
NON-GAAP

(B yen)	2021		2022					
	4Q (Oct-Dec)	Full year (Jan-Dec)	3Q (Jul-Sep)	4Q (Oct-Dec) Midpoint Forecast (Range)*1	YoY	QoQ	Full year (Jan-Dec) Forecast	YoY
Revenue	314.4	994.4	387.6	385.0 (±4.0)	+22.4% (±1.3pts)	-0.7% (±1.0pt)	1,496.4 (±4.0)	+50.5% (±0.4pt)
Gross Margin	54.3%	53.2%	57.0%	54.0%	-0.3pt	-3.0pts	56.9%	+3.8pts
Operating Margin	31.4%	29.8%	36.8%	30.5%	-0.9pt	-6.3pts	36.2%	+6.3pts
1 US$ =	112 yen	109 yen	135 yen	144 yen	32 yen depreciation	9 yen depreciation	130 yen	21 yen depreciation
1 Euro=	130 yen	130 yen	139 yen	142 yen	12 yen depreciation	3 yen depreciation	136 yen	7 yen depreciation

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

Next, I would like to show the Q4 forecast.

See the dark blue column in the middle. The median revenue is expected to be JPY385 billion, or negative 0.7% QoQ, and the profit margin is 54.0%, or negative 3 percentage points QoQ. For the operating margin, we expect 30.5%, or negative 6.3 percentage points QoQ.

The assumed exchange rates are JPY144 to the US dollar and JPY142 to the euro.

To add a little more detail, excluding the impact of foreign exchange rates, revenue was generally flat in Automotive and negative in Industrial/Infrastructure/IoT.

As for gross margin, the product mix is expected to worsen due to declines in Industrial/Infrastructure/IoT. As I mentioned earlier, the number of operating days will decrease due to the impact of scheduled maintenance during the year-end and New Year holidays, and therefore we expect a decrease in production recovery.

We also expect an increase in production costs QoQ, including electricity cost increase, start-up costs of the Kofu Factory, and scheduled maintenance costs.

GAAP / NON-GAAP RECONCILIATION*1

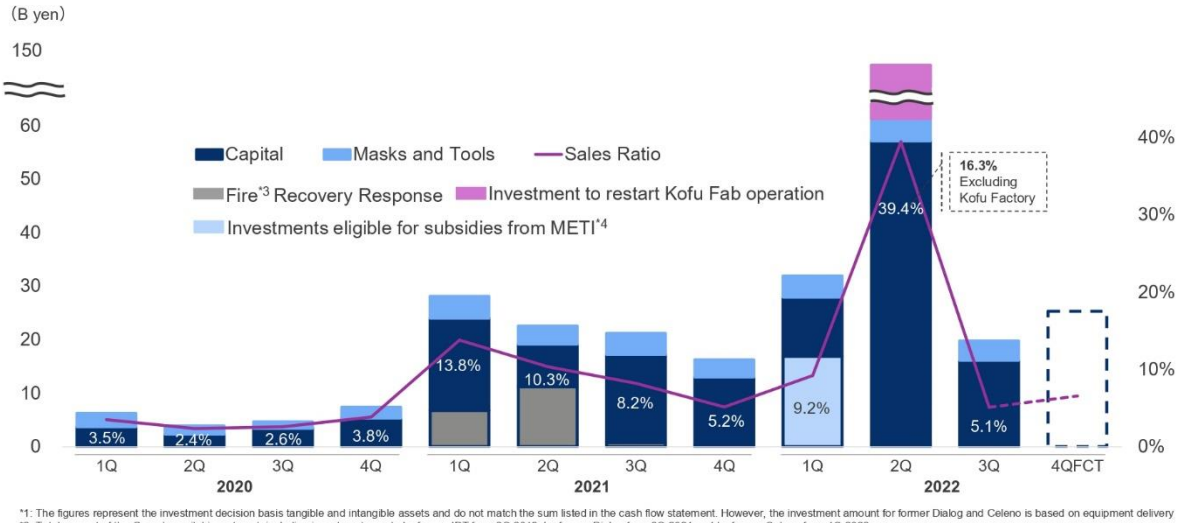
(B yen)	3Q (Jul-Sep)				Full-Year 2021 (Jan-Dec)				2022 3Q (Jul-Sep)			
	Gross Profit	Operating Profit	Net Profit	EBITDA	Gross Profit	Operating Profit	Net Profit	EBITDA	Gross Profit	Operating Profit	Net Profit	EBITDA
Non-GAAP (vs Revenue)	142.7 (55.2%)	83.9 (32.5%)	62.9 (24.3%)	103.6 (40.1%)	528.9 (53.2%)	296.6 (29.8%)	222.2 (22.3%)	375.4 (37.7%)	220.9 (57.0%)	142.8 (36.8%)	96.4 (24.9%)	163.4 (42.1%)
Recurring Items	-4.4	-24.3	-21.0	-7.4	-15.9	-95.6	-80.8	-28.5	-1.1	-32.1	-27.2	-4.7
Former-Intersil PPA Effects	-0.1	-3.9	-3.0	-	-0.3	-15.6	-12.0	-	-0.1	-3.6	-2.7	-
Former-IDT PPA Effects	-0.1	-10.3	-9.1	-	-0.5	-40.4	-34.2	-	-0.1	-12.7	-11.2	-
Former-Dialog PPA Effects	-3.9	-6.6	-5.4	-3.9	-13.7	-24.7	-19.8	-13.6	-0.6	-10.7	-8.3	-0.5
Former-Celeno PPA Effects	-	-	-	-	-	-	-	-	-	-0.9	-0.9	-
Stock-Based Compensation	-0.3	-3.5	-3.5	-3.5	-1.4	-14.9	-14.9	-14.9	-0.4	-4.2	-4.2	-4.2
Non-Recurring Items	-3.3	-8.1	-6.1	-8.0	-16.9	-27.1	-21.8	-27.0	0.2	7.2	5.5	7.2
Naka Factory Fire Impact	-3.7	-3.7	-2.8	-3.7	-15.4	-15.5	-11.6	-15.5	-	-0.0	-0.0	-0.0
Others	0.3	-4.4	-3.3	-4.3	-1.5	-11.6	-10.3	-11.5	0.2	7.2	5.5	7.2
Non-GAAP Adjustments Total	-7.7	-32.4	-27.1	-15.4	-32.7	-122.8	-102.7	-55.5	-0.9	-24.9	-21.7	2.6
GAAP (vs Revenue)	135.0 (52.3%)	51.5 (19.9%)	35.9 (13.9%)	88.2 (34.1%)	496.1 (49.9%)	173.8 (17.5%)	119.5 (12.0%)	319.9 (32.2%)	220.0 (56.8%)	117.9 (30.5%)	74.7 (19.3%)	165.9 (42.9%)

*1: From 3Q 2021 onwards, Non-GAAP adjustments have been also applied to the revenue following the implementation of PPA

Page 17 shows the bridge from Non-GAAP to GAAP.

In Q3, the main non-recurring item was a gain of about JPY8 billion from the sales of equipments and other assets at the Yamaguchi Factory.

CAPITAL EXPENDITURES*1*2



*1: The figures represent the investment decision basis tangible and intangible assets and do not match the sum listed in the cash flow statement. However, the investment amount for former Dialog and Celeno is based on equipment delivery
*2: Total amount of the Group's capital investment, including investments made by former IDT from 2Q 2019, by former Dialog from 3Q 2021 and by former Celeno from 1Q 2022
*3: The fire which occurred at a Renesas consolidated subsidiary on March 19, 2021 *4: METI: Ministry of Economy, Trade and Industry

Next page shows Capital investment.

The Company has already completed a major investment project to increase production by Q2 and has made a decision and plans to make a mid-single digit capital investment in Q3, Q4, and beyond.

This concludes my explanation.

Moderator: Thank you very much.

Question & Answer

[Questioner 1]

Q: First, I would like to ask a supplementary question regarding the assumption or concept behind the sales guidance in Q4. You have explained that Automotive is expected to remain flat QoQ excluding exchange rates. What is your outlook for the production of finished cars?

As for IIoT, QoQ revenue declined, although I think this is due to seasonality and a decrease in sales to some customers. I would like to ask first whether the current plan includes any further negative factors, and if possible, what kind of Q4 sales forecast you have for IIoT, separately for industrial, infrastructure and IoT.

A: I see automotive production as roughly flat. On the other hand, our direct customers are mainly Tier 1 suppliers, and while watching the inventory situation at Tier 1 suppliers, we expect that while automotives will go flat, consumption of our devices at Tier 1 suppliers will slow down compared to Q3. “Slow down” may not be the appropriate phrase. We expect to make adjustments to reflect the amount we took slightly ahead of schedule in Q3.

Therefore, our current view is that if sell-in for our devices remains flat, we expect the channel to expand its inventory accordingly.

As for Industrial/Infrastructure/IoT, industrial segments include various kinds of things, same as other companies. If we talk about things like hard-core factory automation, we are still growing and expect relatively solid numbers.

On the other hand, we expect a large drop from Q3 in printer-related and other PC peripherals, which I mentioned at the beginning of this presentation. In terms of other things, we expect a decrease of about a low teen if the exchange rate is flat.

Also, the IoT section has a lot of broad-based and long-tail customers in it, and I think part of the demand may decrease here, but what we're seeing now is more like an inventory adjustment. In any case, in terms of consumption of our devices, I would say that it will fall by about 10% or so if the exchange rate is flat.

In infrastructure, we expect continued strong growth, especially in cloud computing and data centers. Overall, that's pretty much what it looks like.

Q: Thank you. Second, I would like to ask about profit margins.

As Mr. Shinkai explained qualitatively during his presentation, I would like to reiterate that the gross margins for automotive semiconductors dropped considerably in the Q3 results. What contributed the most to this decline?

I also wanted to ask about the profit margin guidance in Q4. Gross margin and SG&A expenses will probably increase due to the start-up costs of the Kofu Factory and other factors. I would appreciate it if you could explain to the extent possible, what kind of things cause this negative gross margin in ABU and IIoT, respectively, and what their impacts are.

A: I would like to organize it and talk about the bridge from Q3 to Q4 one more time.

Gross margin is down 3 percentage points from Q3 to Q4. The composition is approximately 40% for product mix, more than 20% for production extension such as production recovery, and less than 20% for the impact of production costs, etc.

Regarding the impact of the mix, if we speak on a macro basis, the mix for the entire company will deteriorate because Industrial/Infrastructure/IoT are negative while Automotive is flat. And then there is also some impact of the automotive-specific internal mix deterioration, which is, for one thing, an increase in sales of products with relatively low margins and a decrease in sales of products with high margins.

We also expect the product mix on this QoQ basis to deteriorate due to the impact of the relatively conservative inclusion of non-device sales, which we do not now see with certainty, in our Q4 forecast.

Q: Understood. Just to confirm, the mix is centered on automotive, and the impact of the decline in utilization rate is greater in the area of vehicles with a high ratio of in-house production. Manufacturing costs will probably be impacted in both IIoT and ABU, respectively. Am I correct in understanding that the gross margin of Automotive will still basically decrease over Q4?

A: The production costs are related to the in-house factories, which means that, as with production recovery, relatively speaking, more of the costs will be for Automotive.

[Questioner 2]

Q: The first question about automotive inventory. Given that the inventory in the sales channel has decreased from the previously increasing trend and that sell-in has been reduced, is it safe to assume that if the current production situation continues, it is likely to settle at roughly JPY160 billion in revenue?

As for the supply chain, Toyota mentioned the other day about the production cutback and the lack of semiconductors. Please let me confirm whether there are enough semiconductors for automotive in the end or not, or whether one or two out of 1,000 units are missing.

A: First of all, from the latter part, since Mr. Kataoka is here, he will answer this. Mr. Kataoka, please.

A: Regarding the second part, whether there are enough or not, some products are not enough. So, Toyota, for example, is actually revising its initial production forecast downward with each passing day.

However, from a macro perspective, the degree of insufficiency has eased considerably. Not considerably, but it is easing gradually, and that is what we are seeing. However, because of the degree of easing, we are watching the situation with great caution, which led to the adjustment of channel inventories in Q3. I have explained the second part.

A: Honestly, I am not sure about the first part, but if we put this Q3 level horizontally to give us a clear view of what is ahead, my feeling is that it will rather go up a little more than here.

There are many factors for growth, such as electrification, ADAS, production volume, content growth, and many other things that I have talked about before. One of the factors that may limit the growth is, as you mentioned in the second point of your question, the problem of the number of finished cars produced, which is caused by the question of whether all the components necessary to make a finished car can be supplied.

Another factor is in our device mix. As Mr. Shinkai mentioned earlier, we have placed an advance order for SoC, and we would also like to place advance orders for 40-nanometer microcontrollers, for example, but

even if we place advance orders for these, they will soon run out. It continues to be difficult to catch up no matter how much pull there is. So, there is a factor on the supply side of how much we can expand our supply.

Unfortunately, these two factors mean that we are not in a situation where we can expect to see the large growth next year that we saw last year and this year. But looking to the future at this point, it will still grow a bit over the next year.

Q: Thank you for technically putting more than one point into the question as we are limited to two questions.

I have two similar technical questions about currency exchange.

First, the sensitivity for the full year. Could you tell us about the current scrutinized information over the year, if any?

Second, the exchange rate has been fluctuating a bit, but is there a feeling that this is an opportunity to increase market share? I think we can say that Japanese products are very cheap now, so could you comment on the possibility of increasing market share?

A: For the market share denominated in dollars, we do not assume that the dollar price will be lowered because the yen is cheap, so please consider that the share is basically unaffected by the exchange rate.

Mr. Shinkai will answer regarding sensitivity. Mr. Shinkai, please.

A: You asked on an annual basis, but I hope you will forgive me on a Q4 basis.

As for the assumed impact of foreign exchange rates on the Q4 base, as mentioned earlier, we have hedged against exchange rates, and on that basis, a JPY1 change against the dollar has an impact of JPY1.4 billion on sales, JPY600 million on gross profit, and JPY300 million on operating profit. In the case of the Euro, the impact is also JPY300 million in sales at JPY1, JPY300 million in gross profit, and JPY200 million in operating profit.

[Questioner 3]

Q: First, I think Mr. Shinkai told us that the policy on hedging will be changed in the next fiscal year so that it will not have an impact on the non-operating areas.

Once again, could you tell us first why you originally did that, and now, like other companies, you are changing the profit impact to normal so that sales will be generated, or the reason or background for that change?

A: There seems to be a bit of a misunderstanding, so Mr. Shinkai will explain in more detail.

A: When I said I would change the way, I meant the way we do cash pooling within the Group. I am talking about the foreign exchange rate I discussed on page four. We are doing this to minimize the impact of foreign exchange gains and losses that would affect profit attributable to owners of parent.

The impact on profit attributable to owners of parent was coming from financial expense. The problem is that intercompany loan balances, which are denominated in dollars, are recorded as financial expenses on the consolidated P&L as a result of the fluctuation of these balances due to exchange rates.

Therefore, we can minimize the impact on financial expenses by using other methods of cash pooling instead of the intercompany loan. Therefore, I think you may be misunderstanding this as a slightly different thing.

Q: Understood. Secondly, I know this is difficult to do as of today, but I'd like to sort out a little bit of the positive and negative events that could affect Q1 after the Q4 guidance.

You may be able to eliminate repair costs and other periodic expenses, and perhaps increase prices or successfully reflect material costs, or even bring back operations that had fallen, etc. On the other hand, the IIBU, which has just started to decline, may drop a little more. I would like to sort out the positive and negative factors for Q1 within the scope of what we can see.

As a result, the operating margin is now 30% in Q4, but you mentioned that it will be between 25% and 30% in the long term, and I would like to confirm whether you still feel that you can manage within that range.

A: In the end, the whole story depends on how much the demand for semiconductors will shift on a macro level, so this is a bit of a difficult question. If the level of fluctuation is at the level we are currently expecting, Mr. Shinkai will add more later, if necessary, but if there is a possibility of a negative effect, I think it will be in the production recovery.

As I mentioned earlier, the data does not indicate that demand will change so pessimistically and drastically, but if such a thing were to happen, production would be squeezed considerably, and I think the biggest negative effect would be in production recovery.

The product mix is as you pointed out, and probably in the short term, we talked about PCs and mobile peripherals earlier, and now I am a little concerned about the high-end smartphone area, because if these areas drop, naturally IIBU's product sales will drop. In contrast to Automotive, the Company's overall mix would move in the direction of deterioration. I think these two things will be the main downward pressure over the next year.

Mr. Shinkai, do you have anything to add?

A: I have the same view. The impact of production recovery has the greatest impact on gross margins, so it really depends on that.

There is also a general increase in costs, such as raw material costs and labor costs. We believe that it is reasonably possible to absorb these costs by, for example, passing them on to customers or by other means, and control them within the operating margin range that you mentioned earlier.

Q: Am I correct in understanding that the environment has not changed where it is still possible to pass on the cost of materials and various other costs relatively promptly?

A: I don't know if it is prompt or not, but the situation has not changed in that we are still politely talking to customers and asking for their understanding.

[Questioner 4]

Q: First, there is a bit of an overlap, but Texas Instruments announced their financial results today in Japan time, and their October to December forecast shows a drop in everything except automotive. Conversely, automotive strength is still continuing, but they seemed to avoid commenting on how long it will continue.

Could you please explain once again how Renesas views the demand for automotive semiconductors right now?

A: I have already said everything I have to say, so I don't have much additional comment. Do you have anything to add, Mr. Kataoka?

A: This is usual, but OEMs are still talking about wanting to make a lot of products. Next year, for example, 10% or 20% compared to this year, in the number of car production units. Also, of course, they want to increase sales, so content growth, in essence, they create well-equipped cars with various things on them, and if all of that is accomplished, the demand will increase quite a bit. As always, it is not only semiconductors that are in short supply, but also parts, and in the end, the production volume has settled at the same level as this year. I think it is best for inventory management to consider this point carefully.

Q: So, rather than the demand for the cars themselves, how much supply of parts will determine the number of cars produced next year and the demand for your semiconductors, is that correct?

A: Both production volume and content. We have been doing this for the past two years or so, and we have been putting considerable company-wide effort into changing the way we respond to fast-growing markets and fast-growing customers, which I have talked about in the past. Thanks to this, our sales to China are now growing considerably.

So, this is both good and bad. In the form of so-called secular growth, for example, the Chinese market and, to a lesser extent, India, are giving a considerable support to our sales.

On the other hand, as I mentioned earlier, some of our device families continue to be very tight, and unfortunately, this is a factor that holds us back a bit. We are planning to balance the two, so that we can achieve the growth I mentioned earlier, although it may not be at such a tremendous rate.

Q: Thank you very much. Secondly, in the last part of your presentation, you showed us your capital investment plan, and you mentioned that investment in power semiconductors in Kofu accounts for a large portion. With all the companies investing in power semiconductors, what is your outlook for the competitiveness of Renesas' power semiconductor technology, the growth potential of the power semiconductor market, and the securing of sales outlets in 2024 and beyond?

A: I'm embarrassed to say that I sound like someone who misunderstands the competitiveness of our products, but we really have received very high evaluations from various sources, so I'm not too worried about that.

On the other hand, I still think that perhaps the biggest concern is the macro supply and demand balance. Looking at the long term at the moment, although of course there is a shift more and more to SiC, mainly for cars, I think the growth of IGBTs is quite strong, mainly in low-cost versions or industrial applications.

So, we are investing in it, thinking it will be okay enough. I am rather concerned, however, that if companies continue to expand their capacities, we may end up with an oversupply. We are trying not to be too influenced by it, but to refine our product and carefully take customers who appreciate its value.

I'm sure that's the way we have always been, but we will do it more company-wide than ever before, with both Mr. Kataoka and myself participating in the design phase of our clients' projects. We are seeing that it will be fine because we are strengthening our proposals on how our products can differentiate our customers' products.

[Questioner 5]

Q: The first question is about Automotive. I would like to ask you to explain one more step, to the extent possible, on the points you have just explained.

I think you were saying that the shortage of automotive semiconductors is easing to some extent step by step, but is this because the number of goods that are in short supply is decreasing rapidly, or because the overall supply is sufficient to meet the needs of Tier 1 and OEMs but not enough to supply all of them? In short, is there a shortage of certain goods, or is there still a shortage of goods overall?

And are there parts of your company's goods that are not fully meeting those demand? If so, could you comment to the extent possible as to what the components would be?

A: Direction has no change in the past. I think that the overall quantity of goods is probably already well enough from the past. I don't think this has changed.

As I have said again and again, there are still some parts that are missing here and there, and these things have changed over time, some of them are in transition, and some of them are converging in the number of missing parts. In the past, for example, the list of missing parts would be this long, and the number of missing parts would be very large, but both the types of devices and the number of missing parts is decreasing, which is probably being expressed as an easing of supply and demand.

As I have mentioned several times, the supply for 40-nm microcontrollers continues to be very tight, so the situation is such that they are flying out of the market as soon as they are made. Overall macroeconomic conditions remain tight regarding 40-nm microcontrollers.

Also, depending on the product, mainly analog semiconductors, some processes continue to be under pressure in the mature node processes that I have been talking about, especially those that are outsourced to our foundries. As of today, I am not sure if hand-to-mouth is the right word, but I think that the situation will continue for some time to come, and that the products will go out as soon as they are procured.

Mr. Kataoka, any additional information?

A: As Mr. Shibata explained just now, especially for old products of mature nodes, such as ASIC, not all of them, but certain ASICs are still in tight supply, and become bottleneck. A car cannot be made without a single part, so this is still the case.

However, it is certain that the extent of this is gradually calming down. As Mr. Shibata mentioned, we are still trying to produce as many 40-nm microcontrollers as possible, and the more we produce, the more we can sell. We are now working together with our foundries to expand the capacity.

Q: Thank you very much. Second. I think you mentioned that you are expanding your own capacity, and your competitors' own analog fabs or foundries are also expanding their capacity. Do you think that the timing for the improvement of supply of these mature nodes, or the drastic increase in supply capacity, will come at some point in the near future? Or should we still expect structural tightness to continue for the foreseeable future?

A: Supply and demand are based on demand. Whether the tightness will continue is probably more of a demand-determined factor, short-term speaking.

As you already know, even in a specific manufacturing process, for example, there are multiple products that are separated. So, if the demand for a wide range of consumer products, such as computers and mobile devices, which is today's underlying theme, goes down, that will open up capacity little by little. So, in the short term, as we have shown in our case study, we will gradually increase our capacity over the next year. I think the competitors will also continue to increase their capacity, but I have a feeling that the balance of supply and demand will probably change due to demand factors even more than that.

[Questioner 6]

Q: First of all, let me ask you about in-house inventory. I think you are getting pretty close to the target level for Automotive, but you are still going to continue to expand the die bank. How long will the move to build up your own in-house inventory take in the future? Since it is getting closer and closer to the end of the building up, I suspect that it will be finished in the near future. In that case, do you see the need to further reduce the utilization rate?

A: Regarding die bank, as I mentioned earlier, we have not been able to accumulate any growth products. So, how long it will take is also a matter of demand, but it will take quite some time. We expect to be able to expand the other items by the end of this year and Q1.

Therefore, what about the operating impact? Since this is not such a positive operating impact, we do not think that it will drop significantly at the end of the fill of die bank.

Also, even though we call them die banks, some of them are made in our own factories and some of them are purchased from the foundries and stocked in our factories, so please understand that the increase in work-in-process due to the die bank does not directly affect the in-house production operation.

Q: I would like to ask one additional question. I think that many of the growth products, such as the 40-nm MCU mentioned earlier, are bought from foundries, but if other products are likely to be finished at the end of the year or in Q1, or once you finish building up your own products or those made internally, it seems that it will have more of an impact on the utilization rate. Even so, is it not that large in scale?

A: To be more precise, a good portion of the amount that we have in die bank is foundry goods in terms of value. This means that internal products are about half.

Thus, the rate at which this contributes to the utilization rate is not that great at present. Therefore, even if this is filled and no longer needed, we do not expect that there will be such a large reduction in utilization.

Q: I understand. Thank you very much. Second. I'm not sure if it's a little too early to talk about it, but it’s about the status of the demand buildup in 2023. I ask this all the time, but what changes have you seen in the last three months?

Also, the economy has been slowing down recently, but could you tell us if there has been an increase in cancellations as of late?

A: Cancellations are not increasing. Backlogs continue to be high. I have been saying the same thing for a while now, but I still think the biggest question is, “But is it true?”

Therefore, we are also looking at announcements from other companies, and based on the figures in our operating plan for next year, the backlog is at a very solid level that will support us. If we can believe this, the figures indicate that we will continue to grow.

However, the situation may change drastically. I would like to repeat what I have been saying for a while now: rather than solidifying with a very strong non-cancelable and non-returnable backlog, as we talked about in 1H of this year or last year, we are still closely communicating with our customers and asking them if they really need this, since doing so will be totally useless if it leads to preempting demand.

We have a feeling that we are probably already heading into next year as it is. So, although the backlog will remain strong, we feel that we will wonder if it is really necessary, and we will gradually come to a mutual agreement that we really don't need this much.

I'm always sorry if it is not clear, but we think the demand is very strong based on numbers. However, we have a feeling that the situation will change at some point, so to avoid being surprised when things change, or to avoid being backward in our response when things change, we will continue to carefully communicate with our customers and, if necessary, review the figures in the backlog itself.

[Questioner 7]

Q: First, this is in line with the previous question, but I would like to know about the outlook for next year and the backlog of orders. I think customers have been placing orders well in advance, and you mentioned preempting demand earlier. What do you think about the possibility that this will lead to an adjustment next year to be deeper or longer?

As you just mentioned, would the measures to avoid this be to communicate with customers and gradually thin them out a bit, or to determine the true demand?

A: I'm sorry, but I have already told you everything I have to answer. We are in the process of narrowing down our channel inventory and communicating with our customers and reviewing our backlog to prevent this from happening. If it goes beyond that and the demand disappears significantly, that will have an impact again. We proceed with assuming the risk of future slowdowns, both in terms of inventory and backlog, thus there will not be sudden surprise.

Q: Secondly, I would like to ask you again about foreign exchange. You mentioned foreign exchange sensitivity earlier, and the recent depreciation of the yen is positive for business performance, but is the depreciation of the yen welcomed? What are some of the disadvantages? Also, as a company that manufactures products in Japan, could you please tell us how you feel about the current exchange rate environment and monetary policy?

A: It is not so different from what has already been said in the media, but as you know, we have been promoting diversification in various ways, although the nuance is a little different from localization. Thus, the composition of our workforce is also such that the Japanese make up less than half of the total workforce.

Also, in terms of in-house production and then procurement from foundries, in relation to fab light, procurement from foundries is increasing, and these transactions are basically on a US dollar basis. Given that, the cost increase due to the weak yen is the same for R&D as for manufacturing costs, so there is pressure to increase costs.

Then, not to mention, there is the cost of raw materials and, as Mr. Shinkai mentioned today, the cost of utilities. The cost of electricity has risen tremendously, which has led to various cost pressures, so in this respect, I think it is undesirable.

The benefit of this is that the profit on sales through the exchange rate is like a slight increase in revenue. However, when sales increase, companies tend to become somewhat relaxed in the operations, which is good in the short term, but not so good in the long term if we are complacent. If we add up all of these factors, it would be very easy for us to respond if the yen were to weaken gradually or settle down, but if the yen were to fluctuate wildly in such a short period of time, honestly it would be very difficult for us to manage.

So, as I have repeatedly told you, even if we have to sacrifice some upside, we will make sure that the floor is solid and that we can operate properly. We do not think that if we provide numbers this year or next year, that will be the end of it. In order to achieve solid results for the next 5 to 10 years, it is more important that

the Company's management does not move this way and that, so I honestly hope that the exchange rate will not be too volatile.

Q: Thank you. If so, would you say that a gradual depreciation of the yen, or a weak yen level in itself, is welcome, but that it is undesirable to move so violently?

A: Rather than welcoming it, if that's the case, I think it's all about managing accordingly.

<Closing Comments from CEO Shibata>

I think that there was not so much new material in the current financial results. I am sure that everyone is interested in the margins, but in the end, it is sales and demand that will determine that, so we will do our best to avoid misleading information as much as possible, not only for Q4, but for Q1 of next year and beyond, as appropriate. We will continue to do our best to provide you with as accurate a view of what we are seeing as possible.

Thank you for taking time out of your busy schedule today. We would appreciate your continued support and cooperation.