Translation

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April 16, 2024

For Immediate Release

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Q & A session of the Financial Results Meeting for the fiscal year ended February 2024 (Summary)

OXIDE Corporation held a financial result briefing for analysts and institutional investors on April 16, 2024. The following is a summary of the responses to the main questions asked by those in attendance. To promote clarity, some additions and corrections have been made to the original transcript and are included in this summary.

1. Result, Management structure, and Overall

Q.	I have a question about the factor of approximately 1,500 million yen that caused the decrease in gross profit in the difference between the actual and forecast for the fiscal year ended February 2024. Are we correct to understand that the cumulative total of marginal profit of approximately 1,200 million yen due to a decrease in revenue caused by component failure and repair costs as well as allowance is approximately 300 million yen? In addition, we expect a significant recovery in business performance in the fiscal year ending February 2025. How will you improve profits?
A.	Your understanding is correct with regards to the difference in the fiscal year ended February 2024. For the fiscal year ending February 2025, we expect a recovery in operating income of approximately 1,200 million yen, reflecting an increase of approximately 400 million yen in R&D expenses, despite an increase of approximately 1,600 million in gross profit due to higher revenue.

Q.	We understand that depreciation expense has also increased when calculated from EBITDA and operating profit. How will the increase be covered?
A.	The reason for the increase in gross profit is considered as an expense after taking into account depreciation. As for operating profit, the amortization of goodwill will increase by one quarter, but there will be no other significant increase.

Q.	In the fiscal year ending February 2025, the Company plans to improve its profits every quarter from the first quarter to the fourth quarter. What is the reason behind?
A.	In the Semiconductor business, products equipped with components manufactured by second vendor have already started shipping. We are currently in the process of expanding the component production capacity of our second vendor. In the first half of the fiscal year, we do not expect to be able to secure more than the 10 units per month. Procurement volume is scheduled to be increased gradually from the second quarter. We expect to secure almost the same volume as we expect in the second half of the year. This is in line with the quarterly improvement in the profit of the Semiconductor business.

Q.	I would like to understand the reasons for Dr. Furukawa's appointment as Chairman and his resignation as President. Does this mean Dr. Furukawa is taking responsibility for the operating loss of the previous year?
A.	The purpose of this change is not to take responsibility for the operating loss. As the Founder and President of the Company, Furukawa is always mindful of enhancing corporate value while taking responsibility for delivering solid results that meet the expectations of all stakeholders. Furukawa's appointment as Chairman is aimed at developing Power Semiconductors and Quantum business such as SiC and gallium oxide into a major business following the existing Semiconductor business and Healthcare business. Therefore, Furukawa himself plans to take the position of President of the newly established SiC subsidiary. Details of the SiC subsidiary will be disclosed in a timely manner once it is resolved. In the previous fiscal year, we invested approximately 1 billion yen in R&D and approximately 2 billion yen in CAPEX. Despite we can secure short-term profits by holding down R&D expenses, we prioritize R&D investment because we believe it is important to enhance corporate value from a long-term perspective. As a listed company, however, we must strike a balance between long-term growth and short-term profitability, and under our new management structure we believe we can achieve this balance.

Q.	Please tell us more about the business relationship with KLA Corporation, which is the allottee of the third party allotment in January 2024. Will the relationship with KLA be further deepened in the future?
A.	KLA has been our shareholder since 2006 and has purchased single crystals, lasers for measuring instruments, and related optical components from us. Our products are important parts for KLA, and the expectation of a continuous and stable supply in the future is one of the reasons for the third party allotment. We will continue this relationship and are currently discussing joint research and development on a regular basis and expect that business opportunities will expand further in the future. The transaction value of KLA accounts for approximately 10% of our total revenue.

2. Semiconductor business

Q.	What is the position of OXIDE lasers in the cutting-edge Semiconductor field, including the generative AI field that has been a hot topic recently?
A.	The most advanced logic IC, including the generative AI, are manufactured with process nodes that are 5 nm or smaller. Furthermore, high-density integration is being studied with the aim of achieving higher speeds and lower power consumption. According to the milestones of Semiconductor manufacturers, the development of processes for 2 nm or less is progressing, as is being talked about at Lapidus. In line with this trend toward miniaturization, there is a demand for lasers for wafer inspection that have even shorter wavelengths than the current 266 nm. In order to meet the needs of our customers, we have developed and commercialized lasers for 257 nm, 244 nm, and 213 nm. We will aim to have each Semiconductor manufacturer evaluate our products and launch them in the market in the future. (References 1, 2)

Q.	Who are OXIDE competitors in the field of short-wavelength laser products for cutting-edge logic Semiconductors?
A.	In the Semiconductor inspection equipment market, our main competitor is Coherent in the US. Coherent had a 100% share of the market in this field in the past, but we have captured a 30% share since 2020. Coherent does not have products of 257 nm, 244 nm, 213 nm, and other short-wavelength laser products for Semiconductor inspection equipment are ahead of the competition. In addition, TOPTICA in the Germany sells short-wavelength laser products for scientific and engineering applications, such as university basic research, but we understand that they are not for cutting-edge logic Semiconductors. (References 1, 2)

Q.	I understand that both inspection equipment and manufacturing equipment are very important in Semiconductor manufacturing, but why don't you enter the market for lasers for manufacturing equipment?
A.	There are many advanced manufacturers of lasers for manufacturing, and they are required to have performance different from that of the inspection equipment field where our lasers are used. We first entered the market for lasers for inspection equipment, as we can leverage our strengths in single crystals, wavelength conversion technology, and laser design technology. (References 1, 2)

Q.	Regarding component failure, considering the cost of purchasing, is it possible that purchasing from a second vendor will affect the margin of this business?
A.	The material costs of second vendor are approximately a little less than twice as high. The first vendor's yield was initially 50%, but recently it was less than 10%. In contrast, the yield of second vendor is 100%, so we expect cost reduction effects. In addition, second vendor products are expected to reduce costs by eliminating the need for receiving inspections, replacement of defective parts, and readjustments that were required for first vendor products.

Q.	As for the second vendor, is it possible to increase the supply capacity further?
A.	We are still discussing the supply capacity on an ongoing basis. We expect to double the procurement volume from this fiscal year to the next fiscal year, so we have no concerns about our supply capacity.

Q.	We assume that the yield of second vendor is 100%, and that the margin will improve as a result of volume production. Is this correct in that we expect further improvement in the next year??
A.	As a result, cost prices, including the cost of procuring parts and materials, will fall, and the profit margin will improve in the next fiscal year.

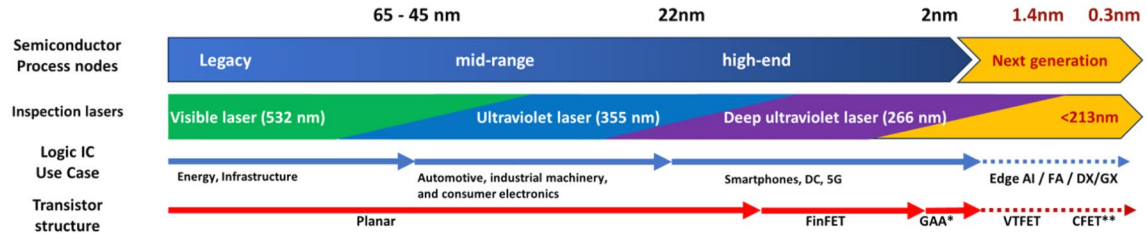
Q.	I have three questions about the component failure issue. ・Were there laxities in the vendor selection and management process? ・Is it correct to understand that the first vendor and the second vendor have different manufacturing methods, which greatly affect the yield? ・Is there a way to in-house production?
A.	We have adopted the parts and materials sold by the first vendor as their catalogue product, but we regret that we have depended on one supplier and would like to make use of this lesson in the future. As a result of our investigation into the cause of the failure, we were able to understand that the yield varies greatly depending on the material, structure, and manufacturing process used to ensure performance. We believe that this will be of great help in the future for in-house production.

Reference1

Semiconductor: Deep ultraviolet laser for Semiconductor wafer inspection equipment

OXIDE

- Demand for high-end Semiconductor with Semiconductor process nodes of 22 nm or less is expanding as the industry progresses.
- The main application of our 266 nm laser is as a light source for Si wafer inspection equipment in the cutting-edge logic Semiconductor manufacturing process.
- By leveraging our proprietary high-quality single crystal and laser design and manufacturing technology, we will continue to meet the needs of the market for even shorter wavelengths and higher output.



Reference2

Semiconductor: Expanded lineup of deep ultraviolet laser products

OXIDE

- To meet the demand for shorter wavelengths for Semiconductor wafer inspection light sources and the needs of a wide range of cutting-edge measurement applications, we have developed 257m, 244 nm, and 213 nm deep ultraviolet lasers in addition to the conventional 266 nm wavelength, expanding our product lineup.
- The Frequad Series is a family of lasers that generate CW (continuous wave) light and can measure surface defects of patterned silicon wafers with low noise in the Semiconductor manufacturing process.

Model	Frequad-HP	Frequad-M	Frequad-C	Frequad-M57	Frequad-M44	Frequad-W
Wavelength	266 nm			257 nm	244 nm	213 nm
output	1 W, 2 W	0.3 ~ 1 W	20 to 50 mW	0.3 ~ 1W	100 to 200 mW	10 to 20 mW
Finished goods	Existing products			New products		

3. Frontier Technology business

Q.	If there are any projects in progress in the Frontier Technology business.
A.	I will explain the three areas in which we have made progress: Quantum, SiC, and gallium oxide. - In the area of Quantum, LQUOM, in which we are a minority shareholder, is making steady progress in the development of quantum communication technologies. It has started transmission experiments on the commercial networks of SoftBank and Optage to verify their practicality. In line with the development of long-distance quantum communication technologies by LQUOM and other companies, we have developed and commercialized entangled photon pair source modules in collaboration with Raicol, in addition to the wavelength-conversion devices that are currently being manufactured and sold. Although it is a new field, we have already generated revenue of approximately 400 million yen. Next is the SiC situation. SiC is being developed with the support of the Green Innovation Fund (GIF). The GIF progress is on schedule, has passed the stage gates, and in April of this year, the third year of the Grant Program, has begun. We aimed to accelerate the shipment of samples for customer evaluation, but the installation of the SiC growing furnace was delayed, so we plan to ship them around this summer. We have also started development of gallium oxide. The SiC and gallium oxide we are developing are both for the same power semiconductors, but their target markets are different. Both are expected to see market expansion in the future. SiC is used for high voltage applications such as electric vehicles, trains, and power transmission, while gallium oxide is used for home appliances such as refrigerators and air conditioners. Accordingly, we are working on both SiC and gallium oxide as important development projects. (Reference 3, 4, 5, 6, 7, 8)

Q.	What kind of IOWN opportunities do you expect in the future?
A.	IOWN is a technology centered on photoelectric conversion, and we understand that it has recently achieved tangible results in areas such as inter-data center communications. Various products have been developed for IOWN, and we believe that our device and material technologies will be important in the area of interconversion between light and electricity. Our technology that can efficiently and stably produce the mutual effects of light and electricity, such as nonlinear optical effects and electro-optical effects, is our strength, and we believe that it can be expected to create IOWN opportunities. The NTT Group is a shareholder of OXIDE and we have a long-term relationship with them.

Reference 3

Quantum: Progress in LQUOM's long-distance quantum communication technology

OXIDE

- OXIDE and Raicol have wavelength conversion devices, entangled light sources, and quantum memory crystals that form the core technologies of quantum communications.
- LQUOM, in which we have invested, is developing quantum repeaters that make possible long-distance quantum cryptography communications using our technology.
- LQUOM has begun transmission experiments of quantum communication using commercial optical fibers (SoftBank and Optage).

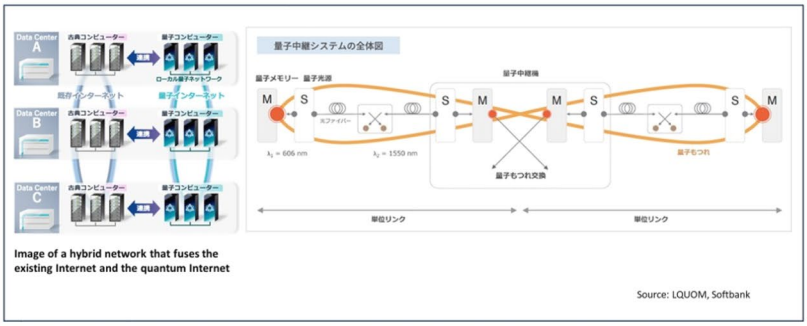
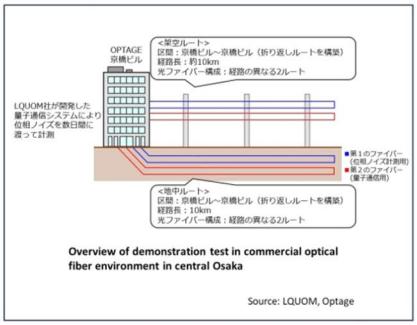


Image of a hybrid network that fuses the existing Internet and the quantum Internet

Source: LQUOM, Softbank



Overview of demonstration test in commercial optical fiber environment in central Osaka

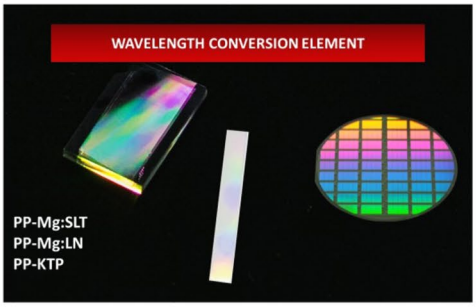
Source: LQUOM, Optage

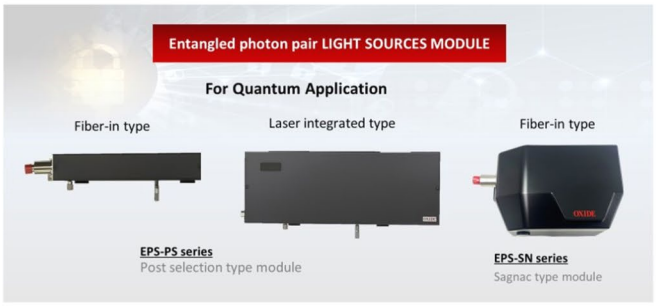
Reference 4

Entangled photon pair module

OXIDE

- We will develop and provide entangled photon pair source modules that use wavelength-conversion devices manufactured by OXIDE and Raicol.
- This light source module can be used in a wide range of application fields, including quantum cryptography and communications and quantum sensing.
- The device and mounting technologies of OXIDE and Raicol have enabled the realization of performance that is compatible with practical systems from the research and development stage.





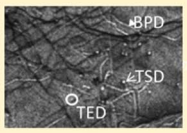
Reference 5

Progress of SiC Solution-Method SiC Single Crystal (1)

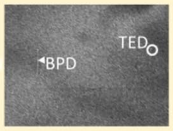
OXIDE

- Using NEDO National Project, progress has been made in the development of ultra-low-defect SiC substrates that cannot be achieved by the sublimation method. Passed the 2nd year stage gate.
- The SiC market is growing faster than expected, mainly for EV applications.
  In the future, the demand for SiC-IGBT for ultra high voltage application to DC power transmission is expected.
- Create a p-type SiC market ahead of new demand growth in the energy and industrial electric machinery sectors.

Nagoya University Basic Research
The solution growth method can realize the performance which cannot be achieved by the sublimation method.
- Outstanding high quality (10 to 100 times)
- Low cost (1 / 10 in theory)



Commercial SiC crystals manufactured by the sublimation method



Solution-Method SiC Crystals

From the Nagoya University Ujihara Research Lab website

Market implementation

NEDO Green Innovation Fund
Development of ultra-high quality, 8-inch, low-cost SiC wafers

(1)	Larger diameter	Determine the growth conditions and the growth furnace specifications by simulation.
(2)	Lower defect density	Develop a model to predict solution flow and evaluate the correlation between the density of generated inclusions and the dislocation density.
(3)	Lengthen wafer	Conduct simulation to determine growth parameters for achieving longer product length
(4)	Speed of growth	Conduct simulations to determine growth parameters that will enable rapid growth
(5)	Implementation of epitaxial growth	Establishing the Basic Conditions for Epitaxial Growth

Reference 6

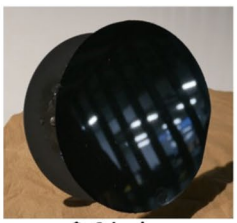
Progress of SiC Solution-Method SiC Single Crystal (2)

OXIDE

- 2023 March — Completed construction of SiC crystal development and mass production plant. (Yamanashi 5th Plant)
- 2023 June — Started installation of a crystal growth furnace.
- March 2024 — Completed installation of eight crystal growth furnaces.
- 2024 March — Nearly completed the technical trace at Nagoya University.
- Continued GI Fund operations in FY 2024 and FY 2025; sample shipments scheduled to begin.

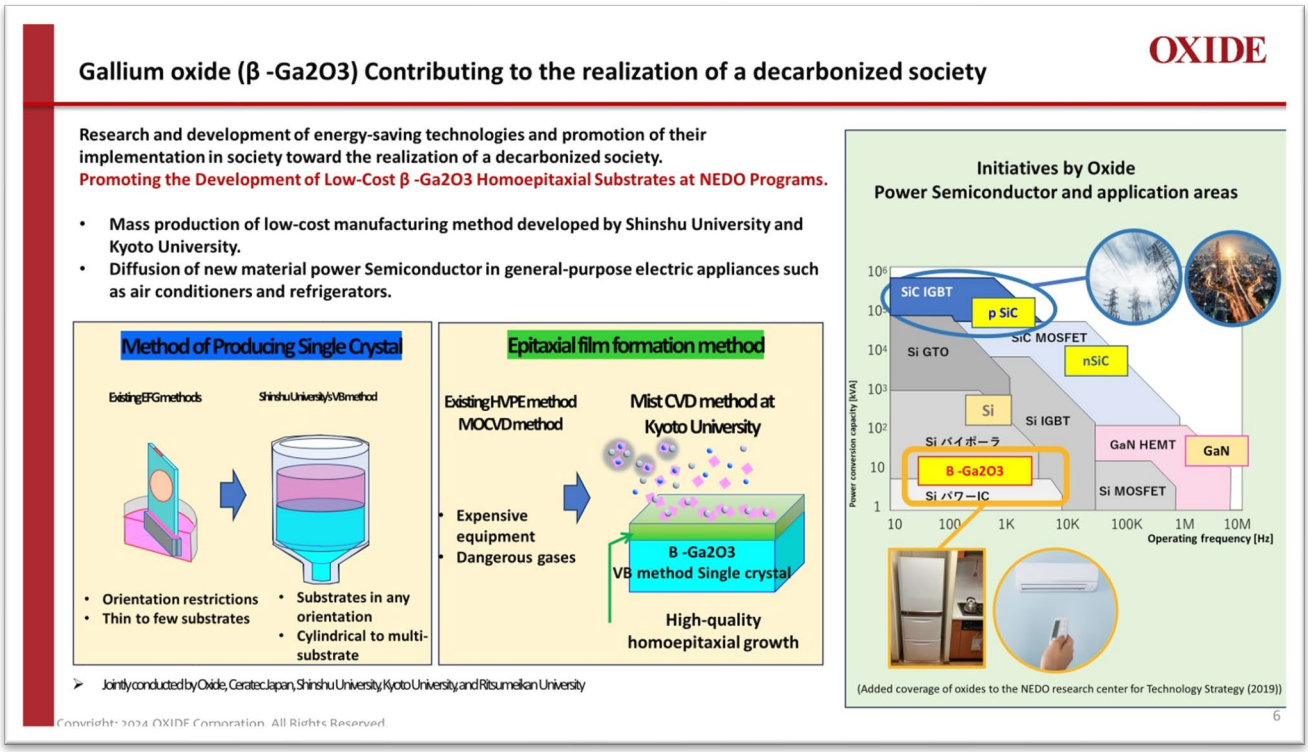
SiC development base (Yamanashi No. 5 Plant)

SiC mass production facility



Φ 6 inch solution-processed SiC wafer
(Source: UJ-C website)

Reference 7



Reference 8